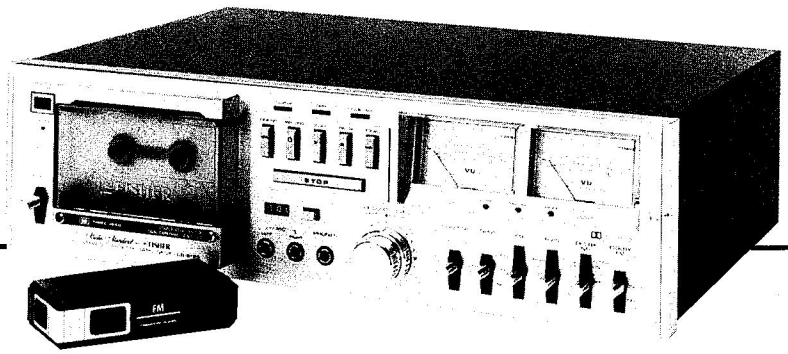
SERVICE MANUAL

FISHER

CR-5125

Stereo Cassette Tape Deck with Double Dolby, Three Heads and Remote Pause Control



The First Name in High Fidelity

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SPECIFICATIONS

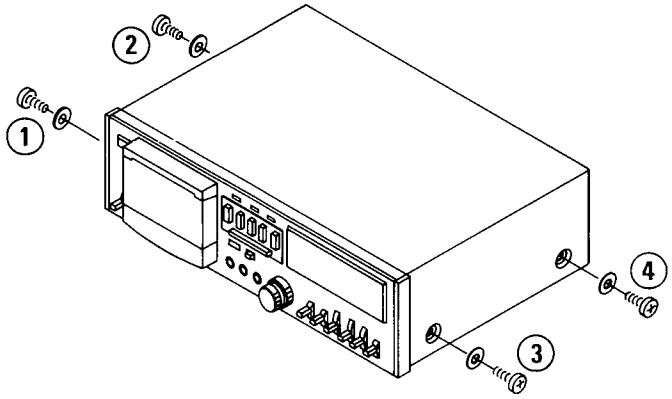
Motors	(1) DC-Servo, (1) DC-Governor
Cassette Loading	Front
Drive System	(2) Capstan
Number of Heads	3
Head Material	(3) Ferrite
Wow & Flutter	0.04% WRMS
Signal-to-Noise Ratio	
Dolby off	55dB
Dolby on	64dB
Erase Ratio	70dB
Channel Separation	40dB
Signal Crosstalk	70dB
Frequency Response	
Normal Tape (±3dB)	30 ~ 15,000 Hz
CrO_2 Tape (±3dB)	30 ~ 18,000 Hz
Total Harmonic Distortion at 0VU	1.4%
Fast Forward/Rewind Time (C-60)	84 sec.
Level Indicators	
Record Level VU Meters	2
Peak Indicating LEDs	2
INPUTs (Sensitivity/Impedance)	
(2) Microphone	0.2 mV/600Ω ~ 10 kΩ
(2) LINE-FM Dolby	100mV/100 kΩ
Input Level Controls	2
Outputs (Level @0VU)	
LINE	1 V/5 kΩ
Stereo Phones	8Ω/30 mV (8Ω load)
VU Meter Range	–20VU ~ +5VU
Tape Selector Switch	Norm, CrO_2, FeCr
FM Dolby Switch	Yes
Power Requirements (50/60 Hz)	120V AC ±10% 25W
Dimensions (WxDxH)	17-1/3" x 12-1/4" x 4-3/4"
Weight	22.5 lbs.
Cabinet Material	Walnut-grain vinyl veneer
Operation	Electronic All Functions Solenoid
Tape Counter	Mechanical
Wireless Remote Control	Pause

–Specifications subject to change without notice.–

DISASSEMBLY INSTRUCTIONS

COVER REMOVAL

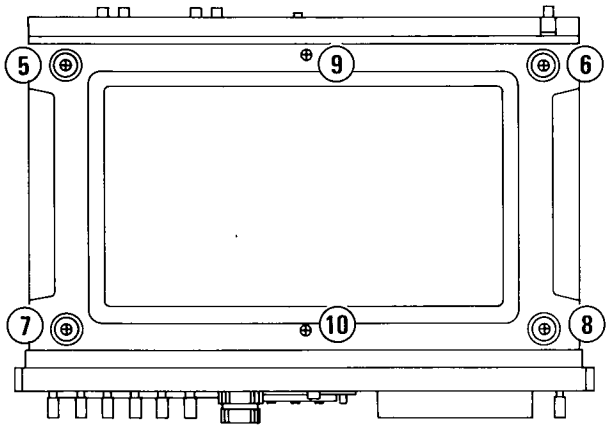
1. Remove four screws (1 – 4) and four washers fastening the Cover.



2. Lift cover off.
3. Reassemble in reverse order.

SHEET PANEL REMOVAL

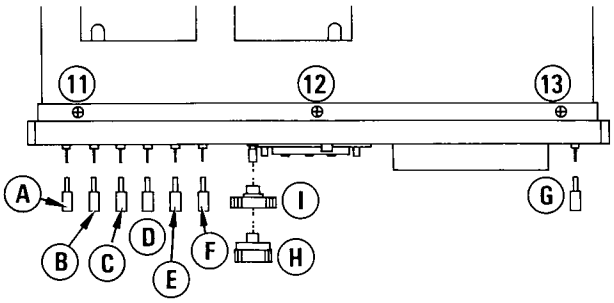
1. Turn the unit over onto a clean soft surface.
2. Remove the four Legs by removing the four screws (5 – 8).
3. To take off the Sheet Panel, remove two screws (9 – 10).



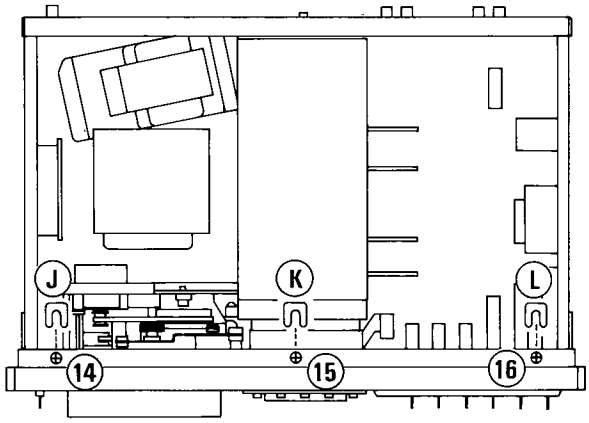
4. Reassemble in reverse order.

COMPLETE FRONT PANEL REMOVAL

1. Follow the instructions for Cover Removal.
2. Pull out the seven Switch Knobs (A – G) and the INPUT Level Control Knobs (H and I).
3. Turn the unit over onto a soft surface and remove the three screws (11 – 13) fastening the lower side of the Front Panel.

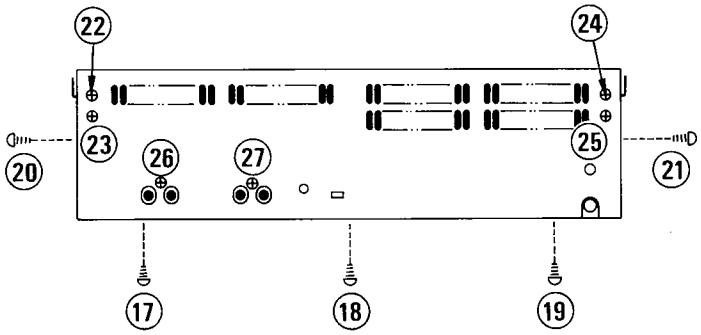


4. Place the unit in an upright position and remove the three screws (14 – 16) fastening the upper side of the Front Panel.
5. Pull out the two connectors (CN3 and CN8) from the Amplifier Base P.C.Board. Then, remove the connector lead wires from the wire band.
6. Remove the three spacers (J – L) and pull the Complete Front Panel off the unit.



REAR PANEL REMOVAL

1. Follow the instructions for Cover Removal.
2. Remove the nine screws (17 – 25) fastening the Rear Panel. Then, remove the two screws (26 and 27) holding the Jacks (LINE IN and LINE OUT) to remove the Rear Panel.

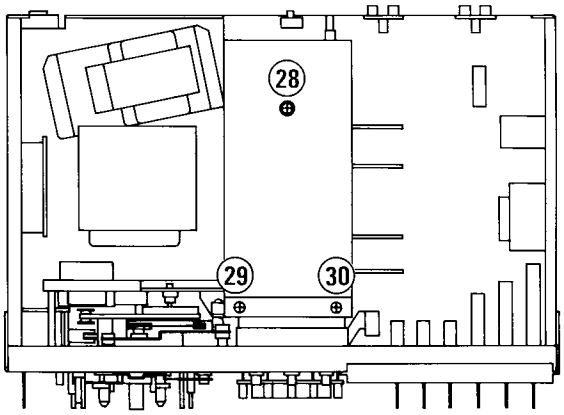


3. Reassemble in reverse order.

DISASSEMBLY INSTRUCTIONS (Continued)

CONTROL AMPLIFIER P.C.BOARD ASSEMBLY REMOVAL

1. Follow the instructions for Cover Removal.
2. Remove three screws (28 – 30) fastening the Control Amplifier P.C.Board and remove fiber washer.

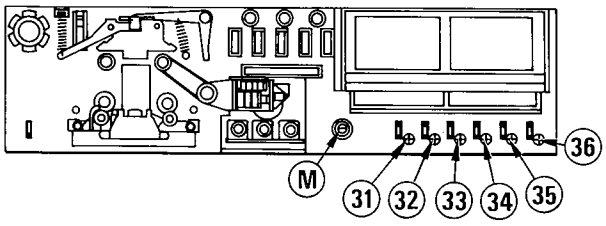


3. To remove the Control Amplifier P.C.Board Assembly, pull out the eight connectors (CN10 – CN17) from the Control Amplifier P.C.Board.
4. Reassemble in reverse order. Follow the instructions for the Control Amplifier P.C.Board Mounting in the Mechanical Adjustments whenever the P.C.Board is attached to the unit.

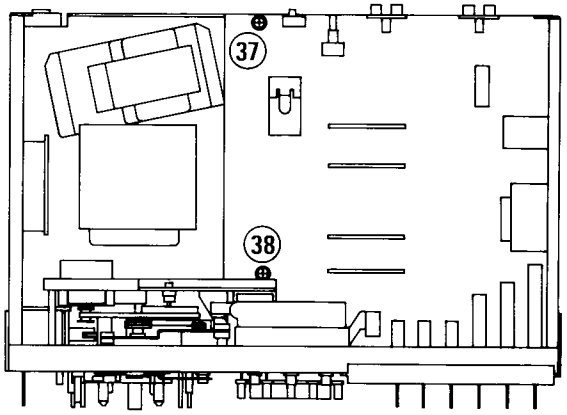
NOTE:
Refer to the Wiring Diagram when the connectors are attached to the Control Amplifier P.C.Board.

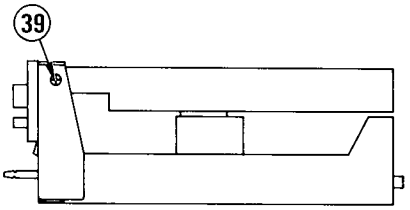
AMPLIFIER BASE P.C.BOARD ASSEMBLY REMOVAL

1. Follow the instructions for removal of the Cover, Rear Panel, Complete Front Panel and Control Amplifier P.C.Board Assembly.
2. Remove six screws (31 – 36) fastening the Switches and remove Nut (M) and washer holding the INPUT Level Controls.



3. Remove two screws (37 and 38) and two fiber washers holding the Amplifier P.C.Board and then, remove screw (39) fastening the Frame.



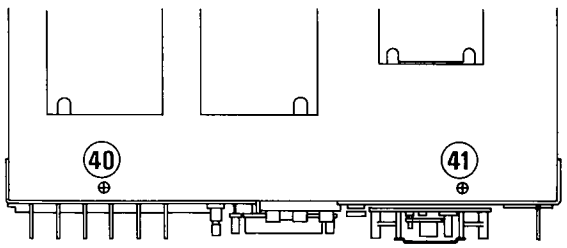


4. Unsolder the four lead wires (two black, blue, and red) from the Meters. Pull out the four connectors (CN4, CN5, CN7, and CN9) from the Amplifier Base P.C.Board, and connector (CN21) from the Power Supply P.C.Board.
5. Then, carefully remove the Amplifier Base P.C.Board from the unit.
6. Reassemble in reverse order.

NOTE:
Refer to the Wiring Diagram when the connectors are attached to the Amplifier Base P.C.Board, and the lead wires are soldered to the Meters.

CHASSIS ASSEMBLY REMOVAL

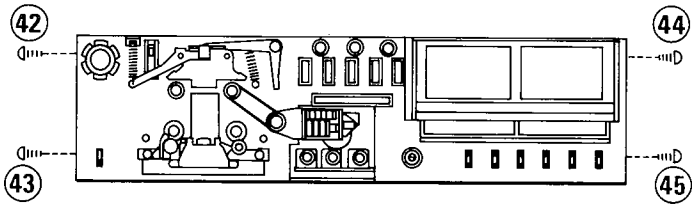
1. Remove the Cover, Complete Panel and Control Amplifier P.C.Board Assemblies by following the removal instructions for each.
2. Turn the unit over and remove two screws (40 and 41) fastening the Chassis. Then, place the unit in an upright position.



DISASSEMBLY INSTRUCTIONS (Continued)

3. Remove six screws (31 – 36) fastening the Switches, and remove Nut (M) and washer holding the INPUT Level Controls.

4. Remove four screws (42 – 45) fastening both sides of the Chassis.



5. Unsolder the five lead wires (two black, blue, red, and gray) from the Meters and pull out the four connectors (CN4, CN5, CN7, and CN9) from the Amplifier Base P.C.Board, and the two connectors (CN22 and CN23) from the Power Supply P.C.Board.

6. Pull the Chassis Assembly off the unit.

7. Reassemble in reverse order.

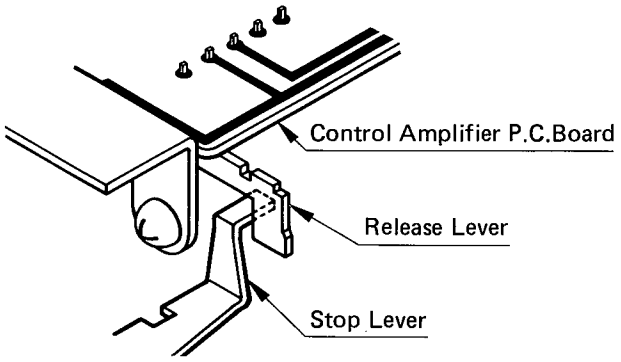
NOTE:
Refer to the Wiring Diagram when the connectors are attached to the Amplifier Base P.C.Board and the lead wires are soldered to the Meters.

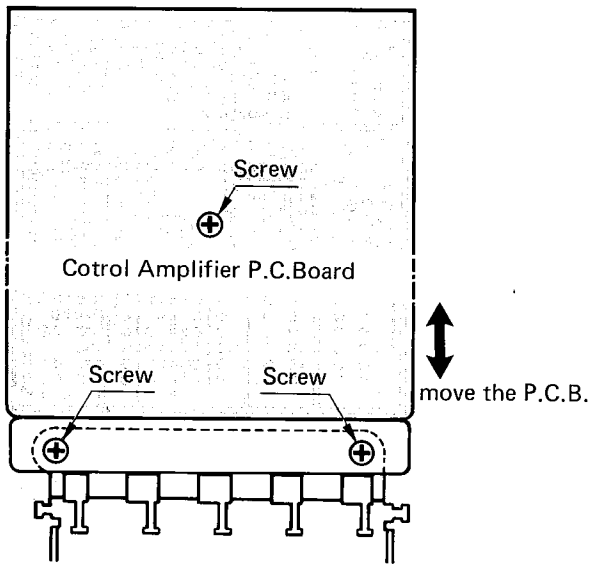
MECHANICAL ADJUSTMENTS

CONTROL AMPLIFIER P.C.BOARD MOUNTING

* Mount the P.C.Board by the following procedures.

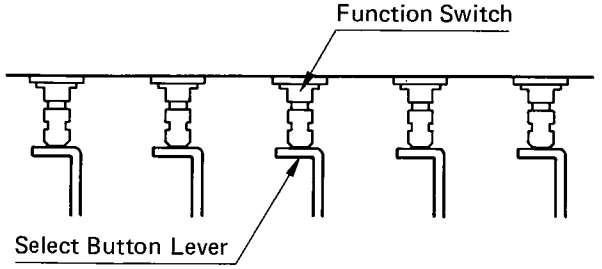
1. Mount the Control Amplifier P.C.Board by temporarily tightening the three screws, so that the Stop Lever of the Completed Select Button is located below the Release Lever of the Function Switch as illustrated.





NOTE:
The Control Amplifier P.C.Board can easily be slid.

2. Move the P.C.Board to bring each Select Button Lever into contact with each switch. Then, adjust the mounting position of the P.C.Board correctly confirming that each button except PAUSE button is securely locked by moving the P.C.Board.

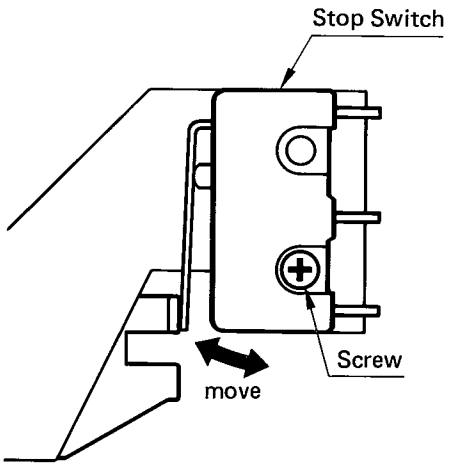


3. After tightening the mounting screws, try to push the Select Buttons again and confirm that they are securely locked.

STOP SWITCH POSITION ADJUSTMENT

1. Push one of the Select Buttons and lock it. Then, gradually push the STOP button. The Select Button should be released after the Stop Switch is changed over.

2. If necessary, loosen the screw fastening the Switch and adjust the position by moving the Switch as illustrated.



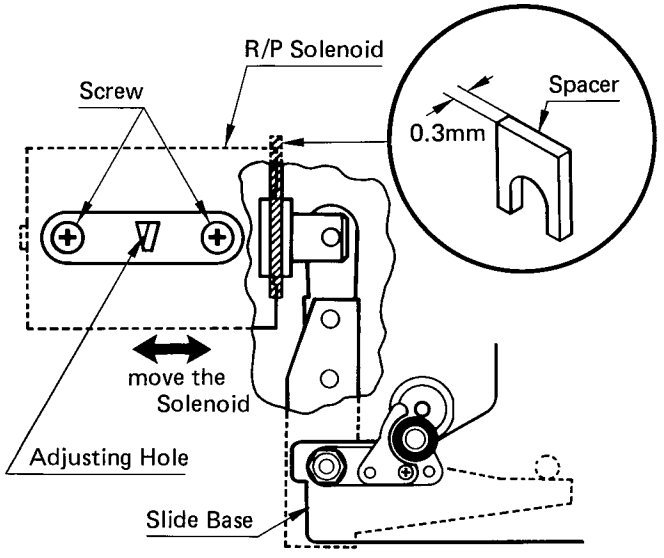
3. After the adjustment, tighten the screw and secure it with paint or glue.

NOTE:
Turn off the Power Switch whenever this adjustment is performed.

R/P SOLENOID POSITION ADJUSTMENT

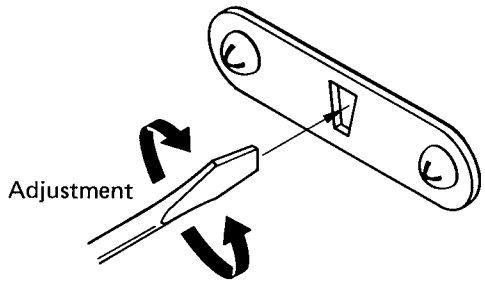
1. Remove the Cover and Complete Front Panel by following instructions given earlier.
Prepare for a spacer of 0.3mm as illustrated.

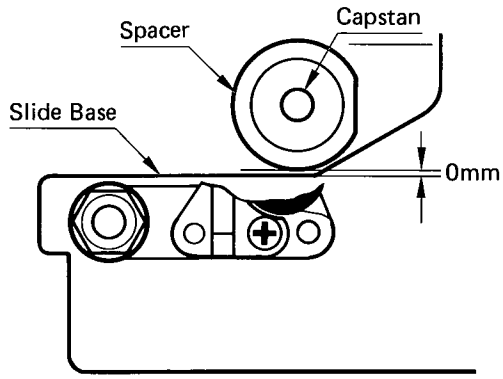
2. Loosen the two screws fastening the Solenoid and insert the spacer in the Solenoid as illustrated. Then, set the unit in the playback mode by pushing the PLAY button.



MECHANICAL ADJUSTMENTS (Continued)

3. Insert a screwdriver into the adjusting hole as illustrated and turn the screwdriver to obtain the clearance of "0" between the Slide Base and the spacer. Then, check to see that there is clearance between the Pinch Roller Arm and Slide Base.





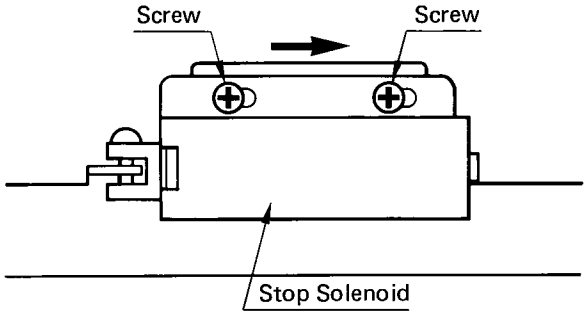
4. After the adjustment, tighten the fastening screws and secure them with paint or glue. Then, take out the Spacer from the Solenoid after the STOP button is pushed.

STOP SOLENOID MOUNTING

* Mount the Stop Solenoid, using the following procedures whenever it is replaced or removed.

1. Mount the Stop Solenoid on the Completed Select Button by temporarily tightening the two screws.

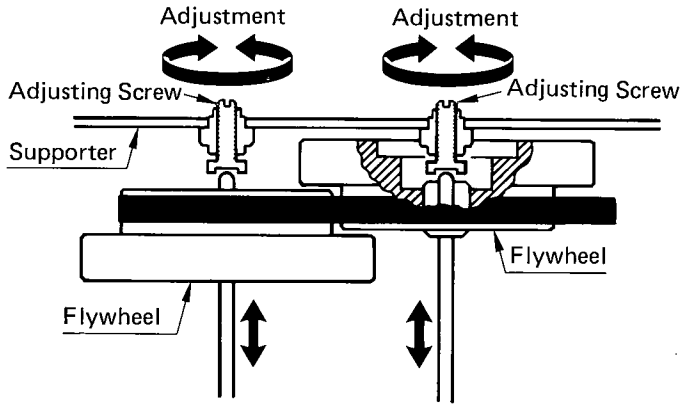
2. Press the Solenoid in the direction of the arrow as illustrated and tighten the fastening screws.



3. After mounting, secure the screws with paint or glue.

FLYWHEEL ADJUSTING SCREW ADJUSTMENT

1. While moving the Capstan up and down as illustrated, slowly turn the Flywheel Adjusting Screw clockwise to obtain the clearance of "0" between the Adjusting Screw and Flywheel.



NOTE:
Do not turn the Flywheel Adjusting Screw forcibly.

2. Turn the Screw counter-clockwise by 45° – 90° from the position obtained in Item 1.

3. After the adjustment, secure the Screw with paint or glue.

4. Perform the same adjustment for the other adjusting screw.

ELECTRICAL ADJUSTMENTS

REQUIRED EQUIPMENT

- VTVM
- Frequency Counter
- Audio Signal Generator
- Attenuator
- Dummy Load (47 k-ohm)
- Dual-phenomenon Synchroscope
- Test Tapes
  - * 3 kHz test tape (Example: TEAC MTT-111) for Tape Speed Adjustment
  - * 10 kHz test tape (Example: TEAC MTT-114) for Head Azimuth Adjustment
  - * Test Tape for Dolby Level Calibration (Example: TEAC MTT-150) in Playback Gain Adjustment
- Test Tapes for recording and playback operations
  - * Normal Tape (Example: BASF TP-18LHS T308S)
  - * Ferrichrome Tape (Example: SONY DUAD C-60)
  - * Chromium Dioxide Tape (Example: BASF TP-18CrO2 C401R)
- Test Tapes for Tape Running Condition Adjustment
  - * TDK SA C-90
  - * MAXELL UDXLII C-90
- Alignment Tool

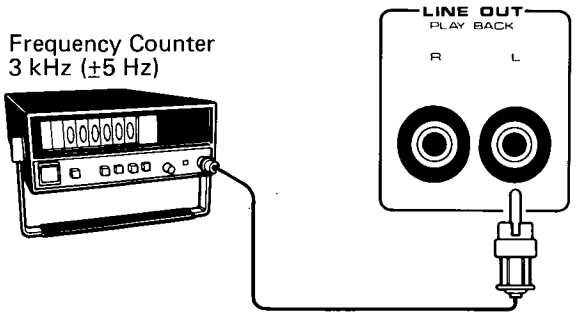
Prior to the Electrical Adjustments, set the unit and the measuring instruments as follows:

* Dolby FM Switch . . . . . OFF
* Dolby NR Switch . . . . . OFF
* Bias Switch . . . . . LOW
* Equalizer Switch . . . . . NORMAL
* Input Select Switch . . . . . LINE
* Monitor Switch . . . . . TAPE
* Audio Signal Generator . . . . . 1 kHz 0 dB, 1 V

NOTE:
The Electrical Adjustments should be performed in the order as below.

TAPE SPEED ADJUSTMENT

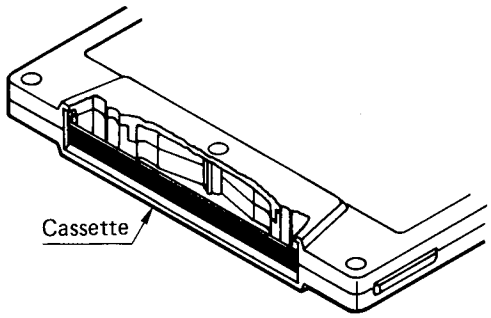
1. Remove the Cover from the unit and connect a frequency counter to the left or right channel LINE OUT as illustrated.



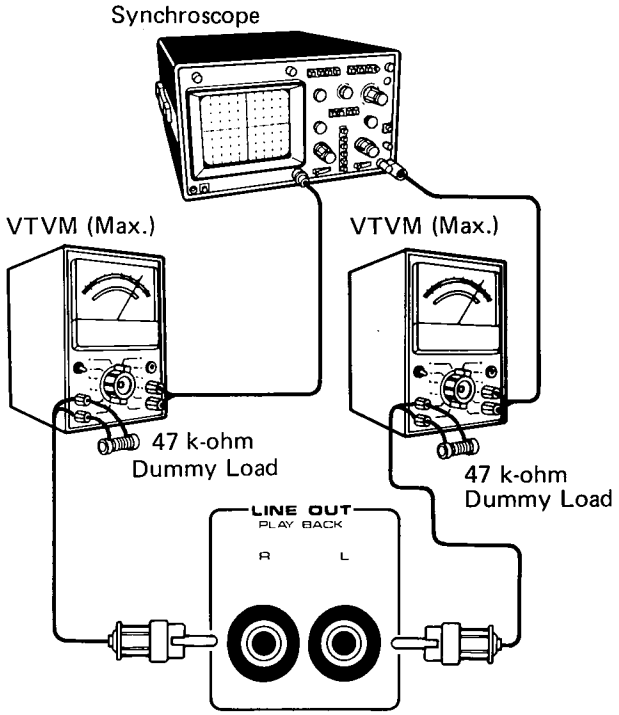
2. Play back a 3 kHz test tape (Example: TEAC MTT-111). Then, adjust the potentiometer inside capstan motor by turning it while the test tape is being played back until the frequency counter reading becomes 3 kHz (±5 Hz).

HEAD AZIMUTH & TAPE RUNNING CONDITION ADJUSTMENT

1. Prepare for the two test tapes as described below for the Tape Running Condition Adjustment.
   We recommend "TDK SA C-90 and MAXELL UDXLII C-90 cassette tapes" for this adjustment.



2. Connect a dualtrace synchroscope to both Left and Right channels of LINE OUT as illustrated. Then, set the synchroscope as follows:
   * MODE . . . . . CHOP (chopped)
   * SOURCE . . . . . INT (internal), CH1 or CH2
   * SWEEP MODE . . . . . AUTO (automatic)

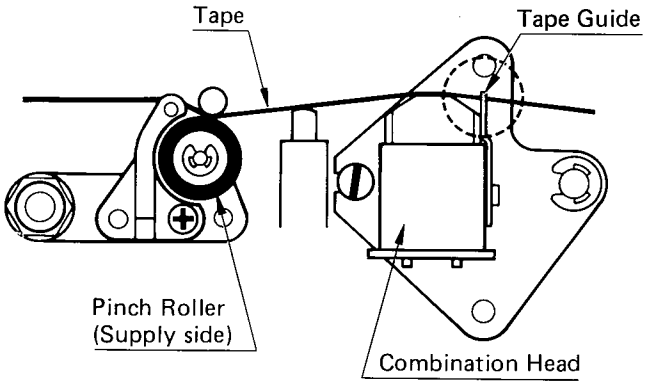


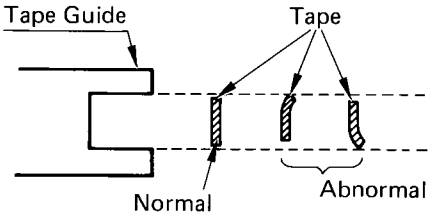
NOTE:
Adjust the field on the synchroscope with the VOLT. ADJ. and TIME ADJ.

3. Remove the Head Cover from the unit. Then, remove the Pinch Roller of the supply side by unscrewing the adjusting nut.

ELECTRICAL ADJUSTMENTS (Continued)

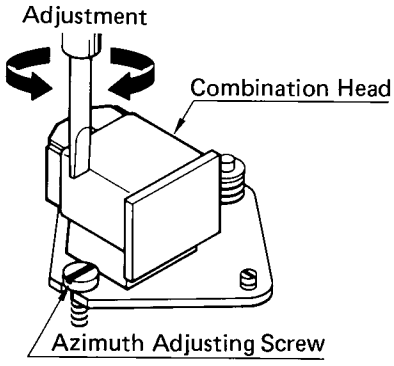
4. Insert the two test tapes into the cassette compartment alternately and play them back. Then, check to see that the tape is not curling along the Tape Guide of the Combination (Record/Playback) Head as illustrated.

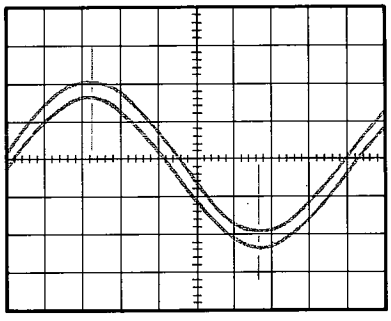




NOTE:
Replace the Pinch Roller of the Take-up side with a new one if a tape curl is caused.

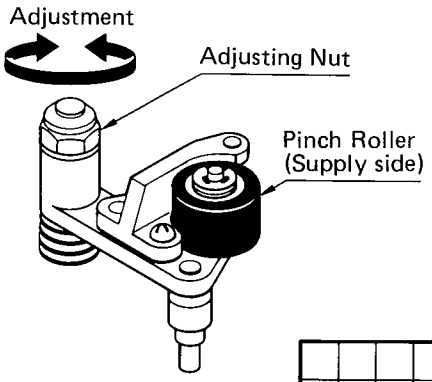
5. Insert the 10 kHz test tape (Example: TEAC MTT-114) into the cassette compartment and turn the Azimuth Adjusting Screw until the waveforms of the Right and Left channels are superimposed. Set to optimum at maximum reading of the VTVM.

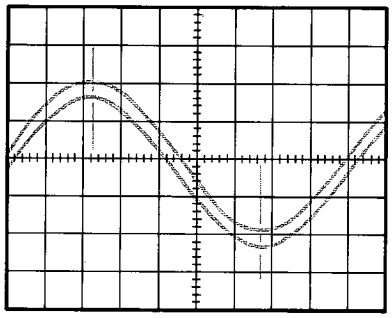




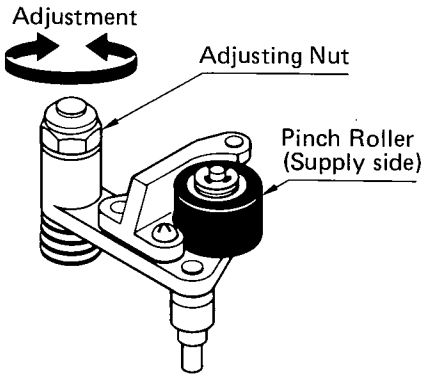
6. Attach the Pinch Roller of the take-up side to the unit and play back the test tapes for the Tape Running Condition Adjustment. Then, adjust the Pinch Roller height by turning the adjusting nut until the tape is exactly centered in the Tape Guide of the Combination Head.

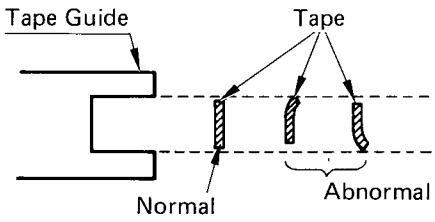
7. While the 10 kHz test tape (Example: TEAC MTT-114) is being played back, turn the adjusting nut until the waveforms of the Right and Left channels are superimposed. Set to optimum at maximum reading of the VTVM.





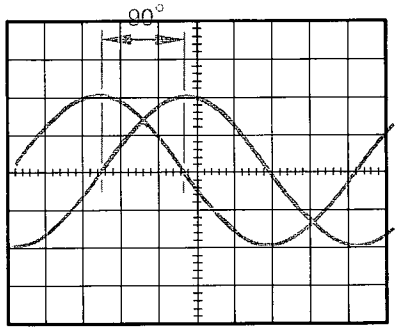
8. Then, re-check to see that the tape is not curling along the Tape Guide of the Combination Head while the test tapes for the Tape Running condition are being played back.
   * If necessary, turn the adjusting nut until the tape is exactly centered in the Tape Guide of the Combination Head.



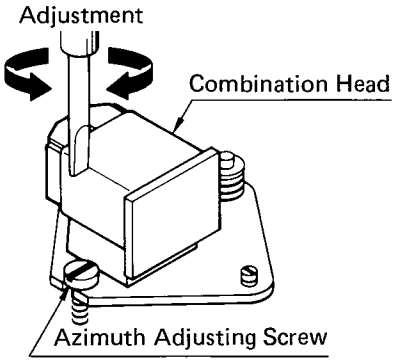


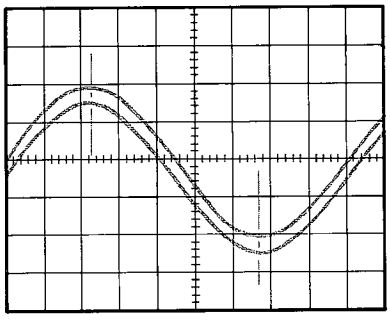
ELECTRICAL ADJUSTMENTS (Continued)

9. While the 10 kHz test tape is being played back again, check to see that the phase difference of the Right and Left channels is ±90° on the synchroscope.



A. While the test tape is playing, turn the azimuth adjusting screw until the waveforms of the Right and Left channels are superimposed.





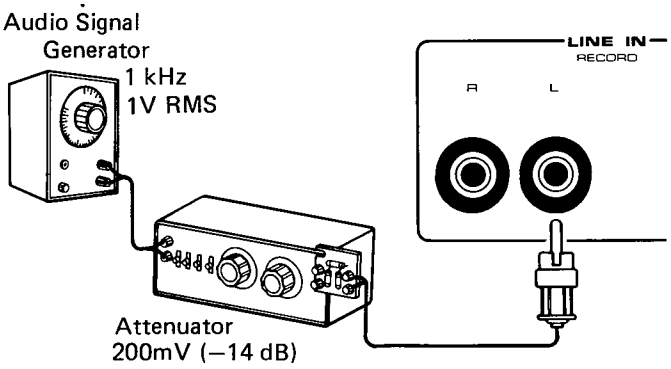
B. If not, replace the Pinch Roller of the take-up side with the other one and perform the adjustment from Item 6.

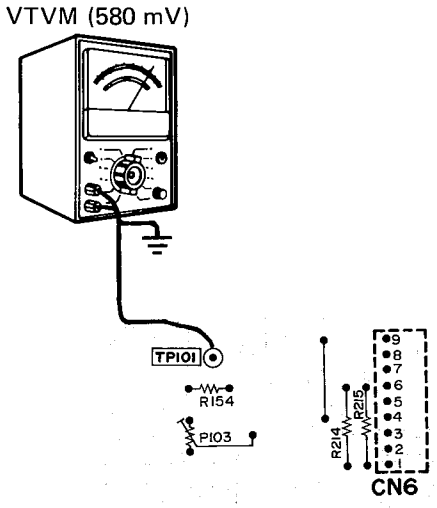
10. After the adjustment, secure the azimuth adjusting screw with paint or glue.

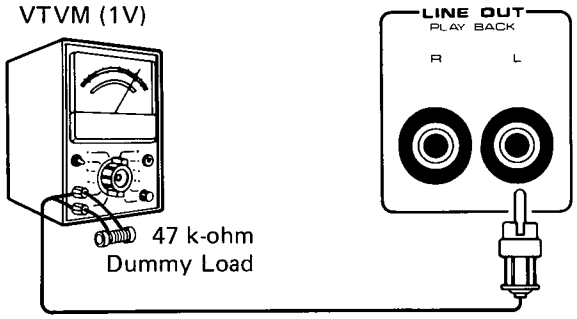
AMPLIFIER GAIN ADJUSTMENT

LEFT CHANNEL

1. Connect an audio signal generator and an attenuator to the left channel LINE IN, a VTVM to the test point (TP101), and a VTVM to the left channel LINE OUT as illustrated.







2. Set the Monitor Switch to SOURCE and feed the 1 kHz signal from the audio signal generator at 200 mV (–14 dB) to the unit.

3. Adjust the left channel INPUT Level Control until the output level on the test point (TP101) becomes 580 mV on the VTVM.

ELECTRICAL ADJUSTMENTS (Continued)

4. Then, adjust the potentiometer (P103) until the output level of 1 V on the LINE OUT is obtained on the VTVM keeping the unit in the above condition.

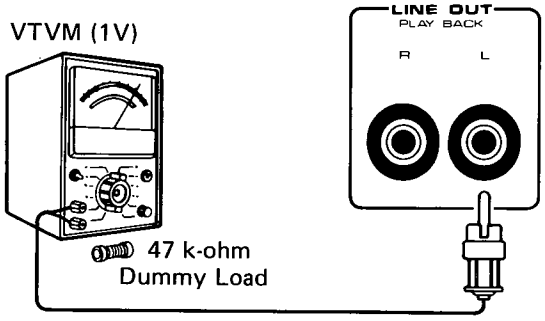
RIGHT CHANNEL

Connect an audio signal generator to the right channel LINE IN, a VTVM to the test point (TP201), and a VTVM to the right channel LINE OUT. Then, adjust the right channel INPUT Level Control and the potentiometer (P203) for the right channel by following the same procedure as for the left channel.

PLAYBACK GAIN & METER LEVEL ADJUSTMENT

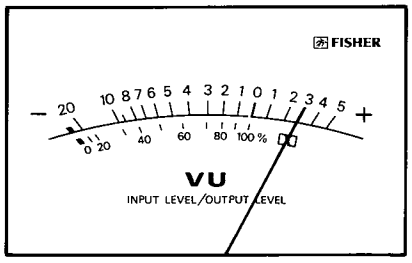
LEFT CHANNEL

1. Connect a VTVM to the left channel LINE OUT as illustrated. Then, insert a test tape for the DOLBY Level calibration (Example: TEAC MTT-150) into the cassette compartment.



2. While the test tape is being played back, adjust the potentiometer (P107) until the output level becomes 1 V on the VTVM.

3. Keeping the unit in the playback mode, adjust the potentiometer (P102) until the pointer of the left channel Meter swings to +3 VU (DOLBY mark position) as illustrated.



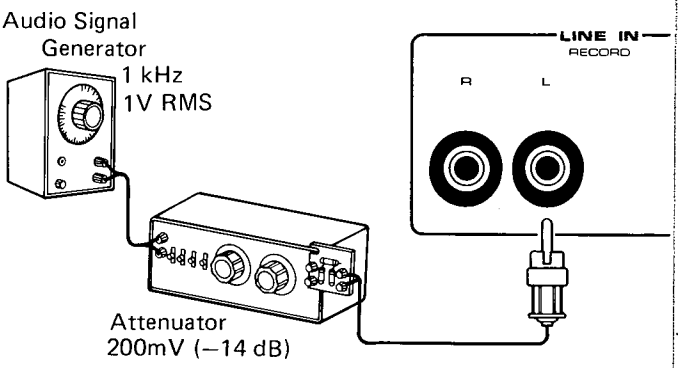
RIGHT CHANNEL

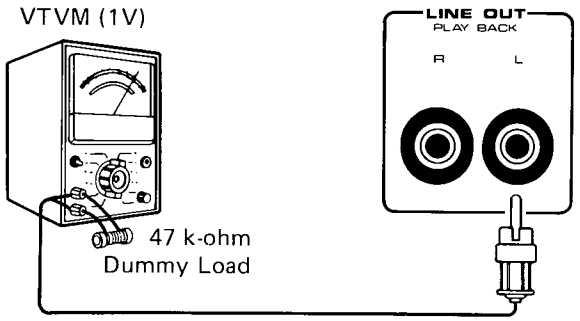
Connect a VTVM to the right channel LINE OUT. Then, adjust the potentiometers (P207 and P202) for the right channel by following the same procedure as for the left channel.

DOLBY FM SENSITIVITY ADJUSTMENT

LEFT CHANNEL

1. Connect an audio signal generator and an attenuator to the left channel LINE IN, and a VTVM to the left channel LINE OUT as illustrated.





Left Channel Output = Right Channel Output

2. Set the DOLBY FM Switch to ON, and the Monitor Switch to SOURCE. Then, feed the 1 kHz signal from the audio signal generator at 200 mV (–14 dB) to the unit with the DOLBY FM Sensitivity Control set to the maximum.

3. Read the output level on the VTVM.

RIGHT CHANNEL

Feed the 1 kHz signal from the audio signal generator at 200 mV (–14 dB) to the right channel LINE IN and adjust the potentiometer (P201) until the output level of right channel becomes identical to the left channel output level on the VTVM.

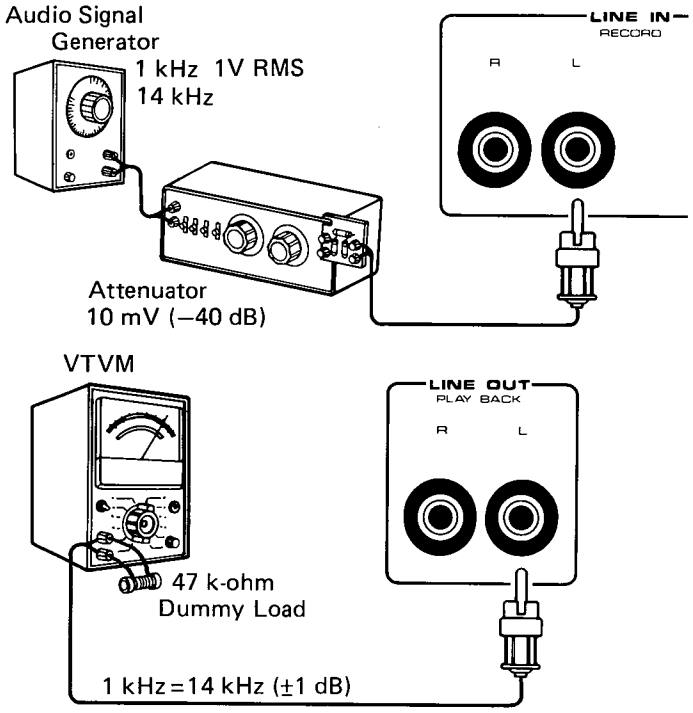
ELECTRICAL ADJUSTMENTS (Continued)

RECORDING BIAS ADJUSTMENT

• for Chromium Dioxide Tape

LEFT CHANNEL

1. Connect an audio signal generator and an attenuator to the left channel LINE IN, and a VTVM to the left channel LINE OUT as illustrated. Then, insert a chromium dioxide tape (Example: BASF TP-18CrO2 C401R) into the cassette compartment.



2. Set the Equalizer Switch to CrO2, and the Bias Switch to HIGH.

3. Set the Monitor Switch to TAPE and feed the 1 kHz signal from the audio signal generator at 10 mV (–40 dB) to the unit with the INPUT Level Control set to the maximum. Then, set the unit in the recording mode and read the output level on the VTVM.

4. While the signal is being recorded, change the audio signal generator from the 1 kHz signal to the 14 kHz signal. Then, check that the 14 kHz signal output level is identical to the 1 kHz signal output level or the deviation is ±1 dB on the VTVM.

5. If not, adjust the potentiometer (P109) and re-check the outputs of each signal by alternately changing the audio signal generator to the 1 kHz signal and the 14 kHz signal.

6. Repeat the above adjustment until the specified output is obtained.

RIGHT CHANNEL

Connect an audio signal generator and an attenuator to the right channel LINE IN, and a VTVM to the right channel LINE OUT. Then, adjust the potentiometer (P209) for the right channel by following the same procedure as for the left channel.

• For Ferrichrome Tape

Set the Switches as follows:

* Equalizer Switch . . . . . FeCr
* Bias Switch . . . . . MID.

Then, insert a ferrichrome tape (Example: SONY DUAD C-60) into the cassette compartment.
Adjust the potentiometers by following the conditions described below and the same procedure as for the Chromium Dioxide Tape.

* Input Signals . . . . . 1 kHz and 14 kHz
* Input Level . . . . . 10 mV (–40 dB)
* Potentiometers for adjustment
  Left channel P108
  Right channel P208

• For Normal Tape

Set the Switches as follows:

* Equalizer Switch Fe2O3
* Bias Switch . . . . . LOW

Then, insert a normal tape (Example: BASF TP-18LHS T308S) into the cassette compartment.
Adjust the potentiometers by following the conditions described below and the same procedure as for the Chromium Dioxide Tape.

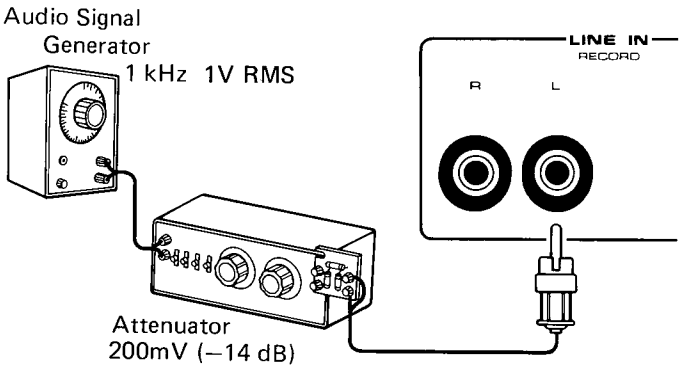
* Input Signal . . . . . 1 kHz and 13 kHz
* Input Level . . . . . 10 mV (–40 dB)
* Potentiometers for adjustment
  Left channel P110
  Right channel P210

RECORDING GAIN ADJUSTMENT

• For Chromium Dioxide Tape

LEFT CHANNEL

1. Connect an audio signal generator and an attenuator to the left channel LINE IN as illustrated. Then, insert a chromium dioxide tape (Example: BASF TP-18CrO2 C401R) into the cassette compartment.

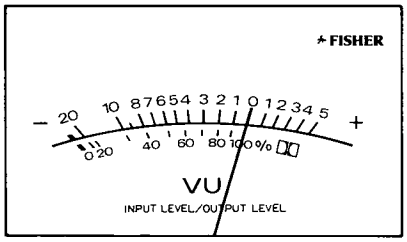


2. Set the Equalizer Switch to CrO2, and the Bias Switch to HIGH.

3. Set the Monitor Switch to SOURCE and feed the 1 kHz signal from the audio signal generator at 200 mV (–14 dB) to the unit.

ELECTRICAL ADJUSTMENTS (Continued)

4. Set the unit in the recording mode and adjust the INPUT Level Control until the pointer of the left channel Meter swings to 0 VU as illustrated while the 1 kHz signal is being recorded.



5. Change the Monitor Switch from SOURCE to TAPE and check to see that the pointer of the left channel Meter stays at 0 VU.

6. If not, adjust the potentiometer (P104) and check the swing of the pointer.

7. Repeat the above adjustment until the pointer of the left channel meter stays at 0 VU.

RIGHT CHANNEL

Connect an audio signal generator and an attenuator to the right channel LINE IN. Then, adjust the potentiometer (P204) for the right channel by following the same procedure as for the left channel.

- **for Ferrichrome Tape**

Set the Switches as follows:

* Equalizer Switch . . . . . FeCr
* Bias Switch . . . . . MID.

Then, insert a ferrichrome tape (Example SONY DUAD C-60) into the cassette compartment.
Adjust the potentiometers by following the conditions described below and the same procedure as for the Chromium Dioxide Tape.

* Input Signal . . . . . 1 kHz
* Input Level . . . . . 200 mV (–14 dB)
* Potentiometers for adjustment
  Left channel P106
  Right channel P206

- **for Normal Tape**

Set the Switches as follows:

* Equalizer Switch . . . . . Fe_2O_3
* Bias Switch . . . . . LOW

Then, insert a normal tape (Example: BASF TP-18LHS T308S) into the cassette compartment.
Adjust the potentiometers by following the conditions described below and the same procedure as for the Chromium Dioxide Tape.

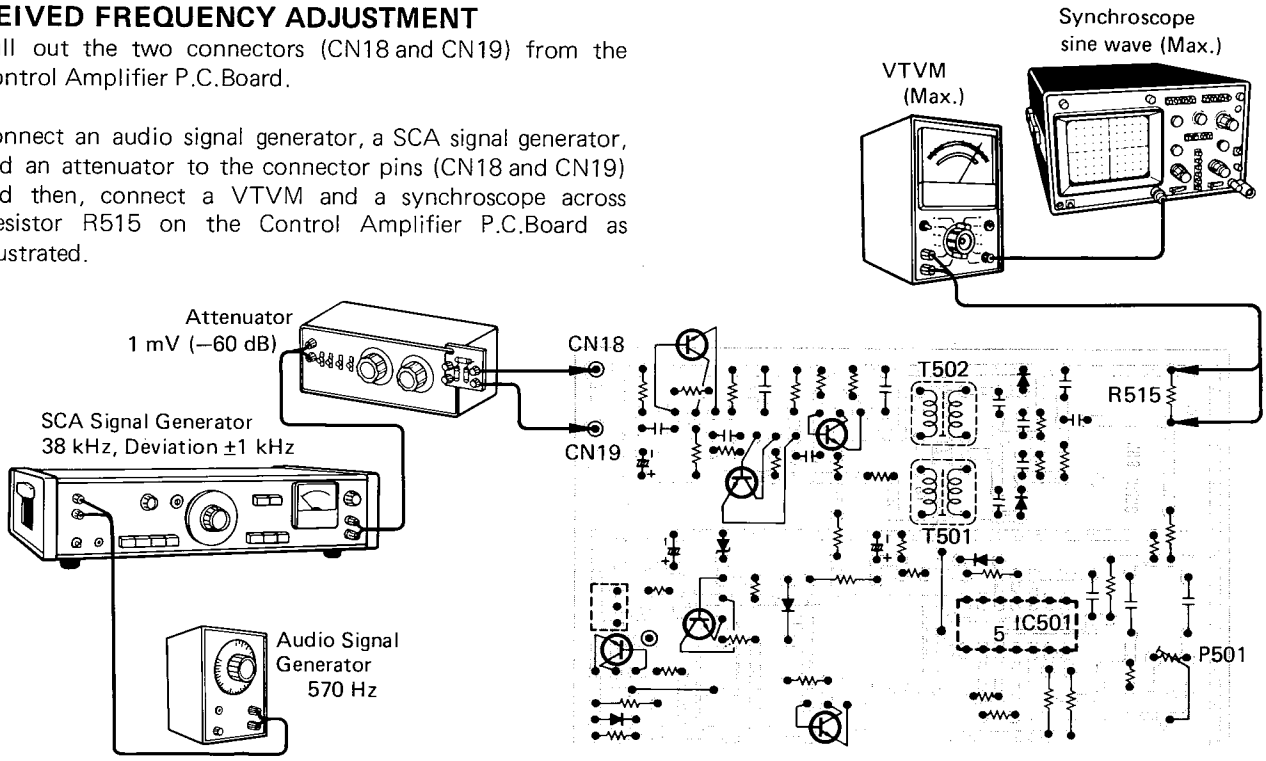
* Input Signal . . . . . 1 kHz
* Input Level . . . . . 200 mV (–14 dB)
* Potentiometers for adjustment
  Left channel P105
  Right channel P205

REMOTE CONTROL ADJUSTMENT

RECEIVED FREQUENCY ADJUSTMENT

1. Pull out the two connectors (CN18 and CN19) from the Control Amplifier P.C.Board.

2. Connect an audio signal generator, a SCA signal generator, and an attenuator to the connector pins (CN18 and CN19) and then, connect a VTVM and a synchroscope across Resistor R515 on the Control Amplifier P.C.Board as illustrated.

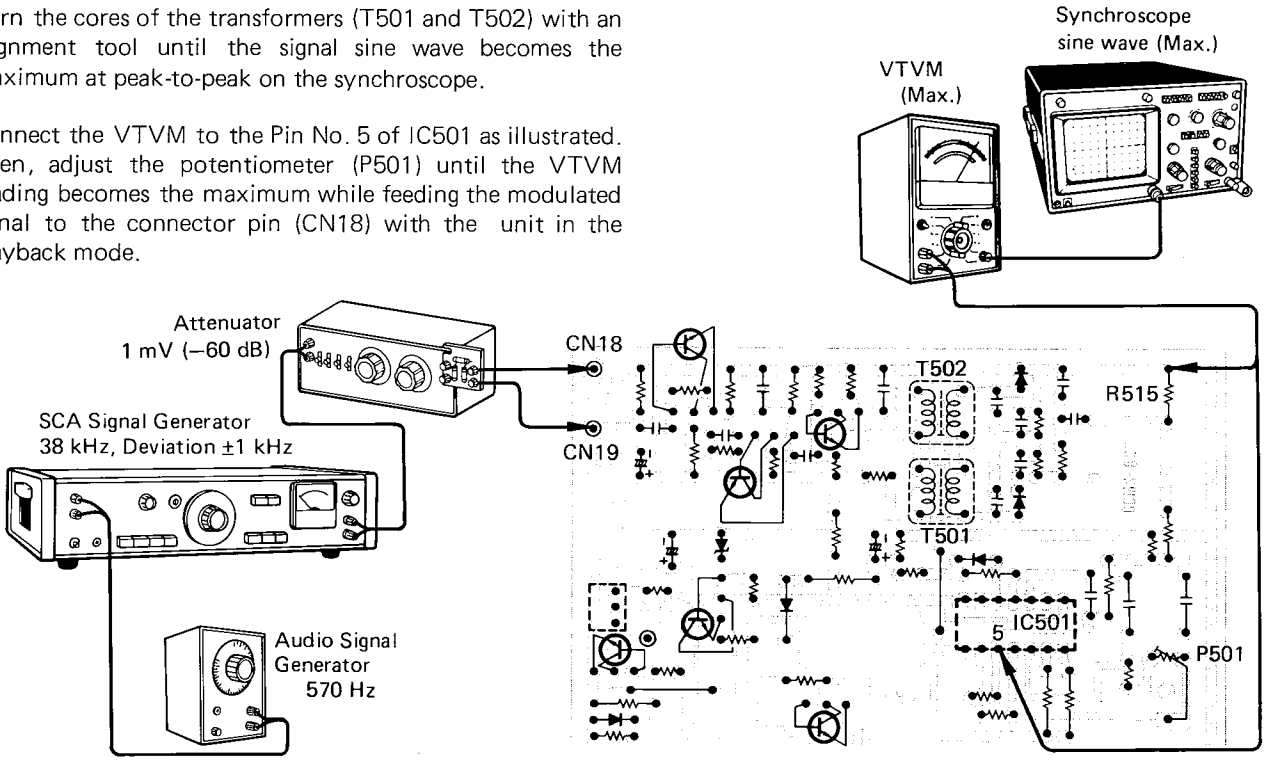


3. Modulate the signal of 570 Hz produced from the audio signal generator at 38 kHz, deviation ±1 kHz in the SCA signal generator.

4. Feed the modulated signal at 1 mV (–60 dB) to the connector pin (CN18) with the unit in the playback mode.

5. Turn the cores of the transformers (T501 and T502) with an alignment tool until the signal sine wave becomes the maximum at peak-to-peak on the synchroscope.

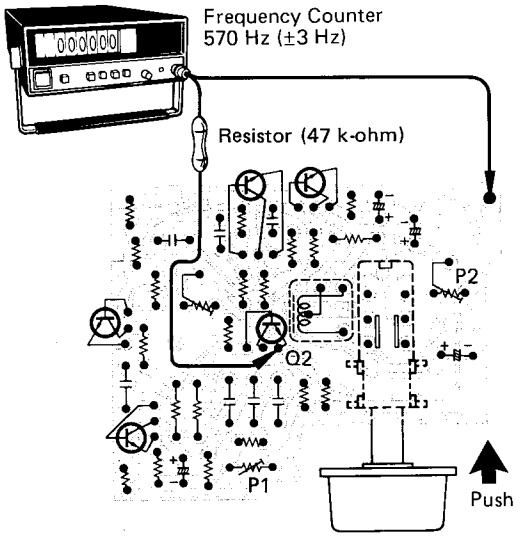
6. Connect the VTVM to the Pin No. 5 of IC501 as illustrated. Then, adjust the potentiometer (P501) until the VTVM reading becomes the maximum while feeding the modulated signal to the connector pin (CN18) with the unit in the playback mode.



TRANSISTER ADJUSTMENT

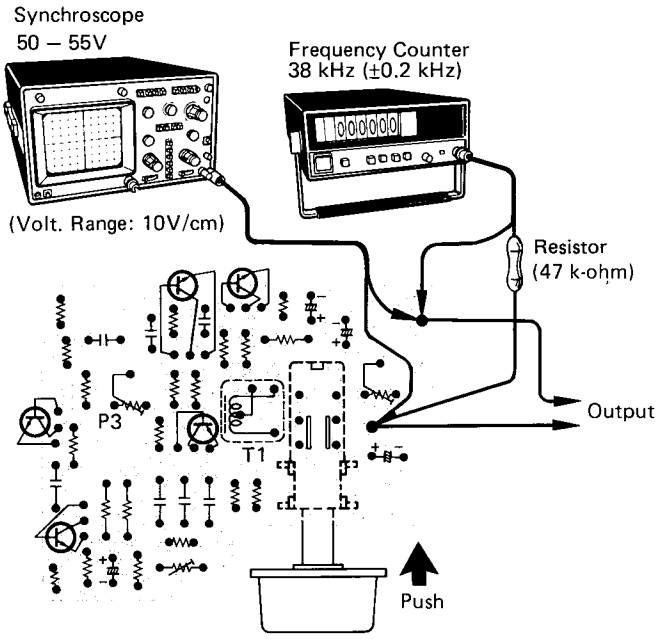
TRANSMITTED FREQUENCY ADJUSTMENT

1. Connect a frequency counter through a 47 k-ohm resistor to the emitter of Transistor Q2 as illustrated.



2. Turn the potentiometer (P2) fully counter-clockwise and adjust the potentiometer (P1) by turning it until the oscillation frequency becomes 570 Hz (±3 Hz) on the frequency counter.

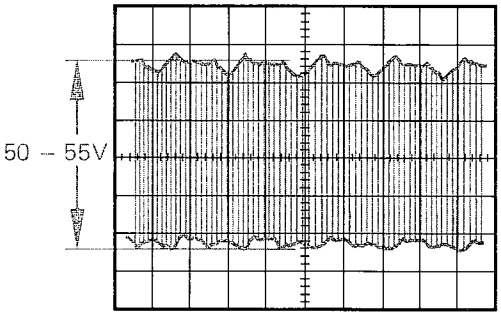
3. Connect the frequency counter through a 47 k-ohm resistor and a synchroscope to the transmitter output as illustrated.

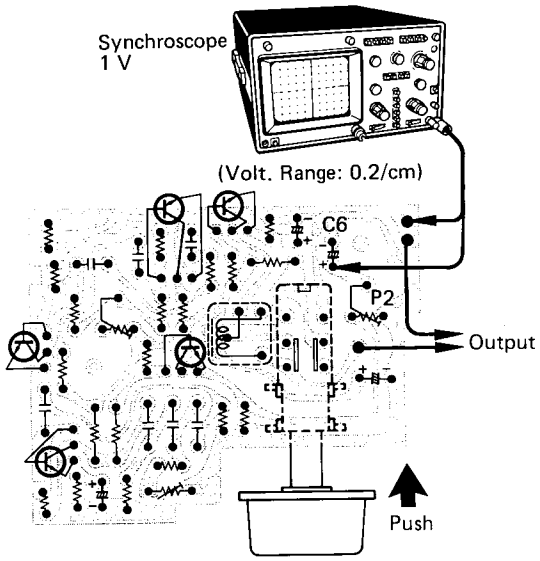


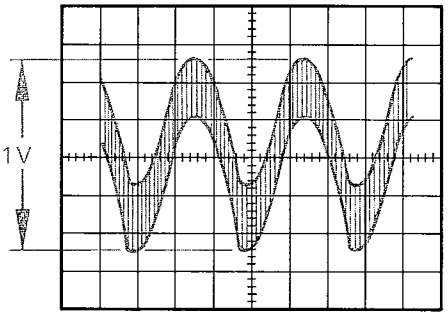
4. Adjust the potentiometer (P3) to obtain 38 kHz (±0.2 kHz) on the frequency counter. Then, turn the core of the transformer (T1) until the wave form becomes the maximum at peak-to-peak (50 – 55 V) on the synchroscope (Volt. Range: 10V/cm.).

5. Check to see that the frequency counter reads 38 kHz (±0.2 kHz).
   * If not, repeat the adjustment in Item 3 until the specified value is obtained.

6. Connect the synchroscope (Volt. Range: 0.2V/cm) to the plus side of Capacitor C6 as illustrated. Then, adjust the potentiometer (P2) until the synchroscope reading becomes 1 V at peak-to-peak.





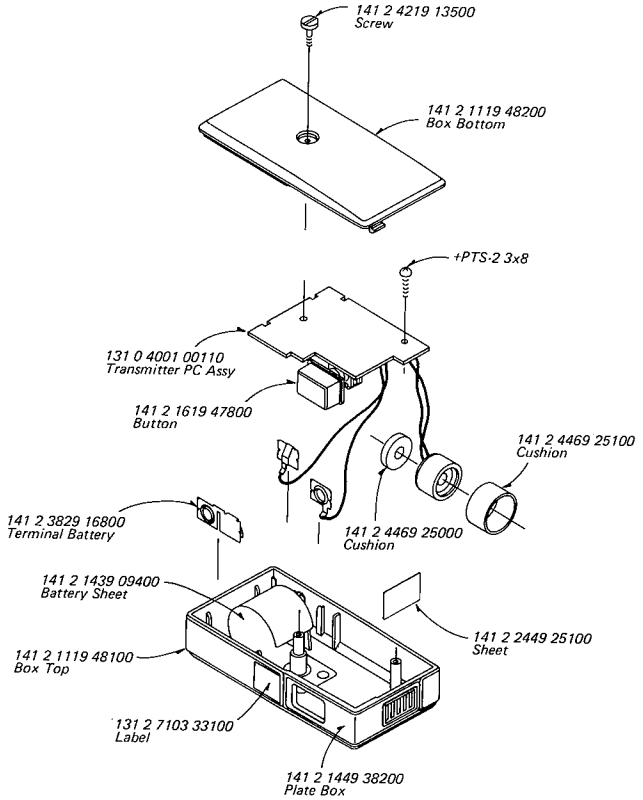


TRANSISTER PARTS LIST

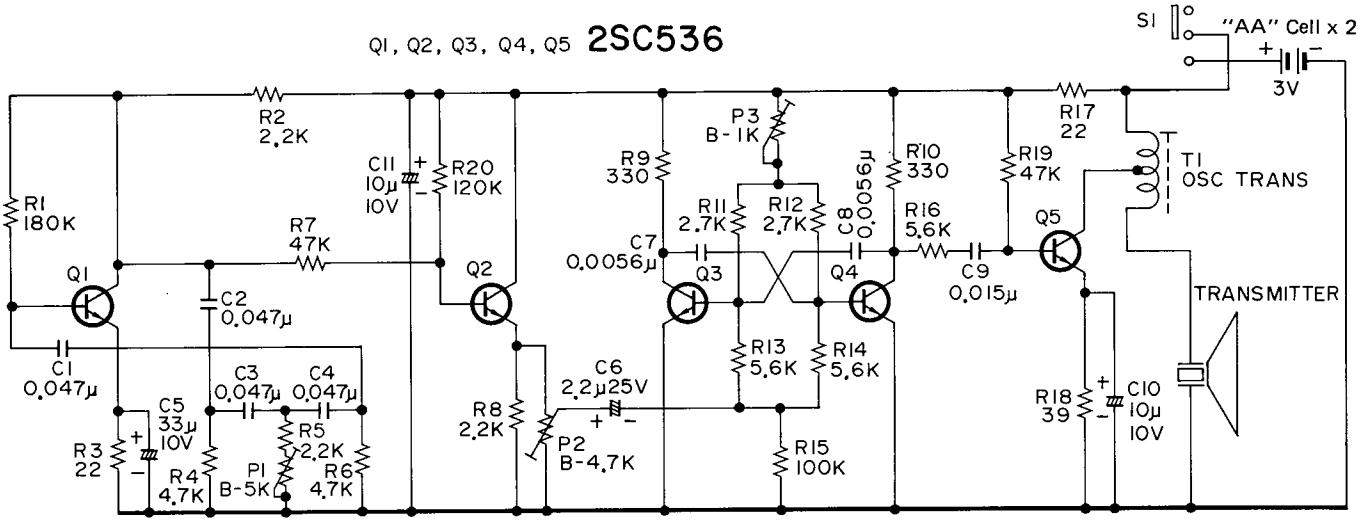
Ref. No.	Part No.	Description	Q'ty
		REMOTE CONTROL TRANSMITTER ASSY	
	4 1922 00010	Remote Control Transmitter Assy	1
	103 3 1303 00811	Screw, Pan Hd. Tapping-2 +M3.0x8	1
	131 0 4001 00110	Transmitter P.C.B. Assy	1
	131 2 7103 33100	Label	1
	141 2 1119 48100	Box, Top	1
	141 2 1119 48200	Box, Bottom	1
	141 2 1439 09400	Battery Sheet	1
	141 2 1449 38200	Box Plate	1
	141 2 1619 47800	Button	1
	141 2 2449 25100	Sheet	1
	141 2 3829 16800	Battery Terminal	1
	141 2 4219 13500	Screw	1
	141 2 4469 25100	Cushion	1
	141 2 4469 25000	Cushion	1
	131 2 7103 22600	Label	1
	131 2 4203 19600	Washer	2
		TRANSMITTER P.C.B. ASSY	
	131 0 4001 00110	Transmitter P.C.B. Assy	1
	4 1519 70650	Speaker (Transmitter)	1
	4 2262 01630	Transmitter P.C.B.	1
S1	4 2312 01060	Push Switch 1 Key	1
	141 2 3829 22101	Battery Terminal	1
	141 2 3829 22202	Battery Terminal	1
C1	CM4 7 3500 K00SV	Mylar 0.047μF 50V ±10%	1
C2	CM4 7 3500 K00SV	Mylar 0.047μF 50V ±10%	1
C3	CM4 7 3500 K00SV	Mylar 0.047μF 50V ±10%	1
C4	CM4 7 3500 K00SV	Mylar 0.047μF 50V ±10%	1
C5	CD3 3 6100 0000V	Electrolytic 33μF 10V	1
C6	CD2 2 5250 0000V	Electrolytic 2.2μF 25V	1
C7	CM5 6 2500 K00SV	Mylar 0.0056μF 50V ±10%	1
C8	CM5 6 2500 K00SV	Mylar 0.0056μF 50V ±10%	1

Ref. No.	Part No.	Description	Q'ty
		TRANSMITTER P.C.B. ASSY	
C9	CM1 5 3500 K00SV	Mylar 0.015μF 50V ±10%	1
C10	CD1 0 6100 0000V	Electrolytic 10μF 10V	1
C11	CD1 0 6100 0000V	Electrolytic 10μF 10V	1
Q1	203 5 5100 53670	Transistor, 2SC536	1
Q2	203 5 5100 53670	Transistor, 2SC536	1
Q3	203 5 5100 53670	Transistor, 2SC536	1
Q4	203 5 5100 53670	Transistor, 2SC536	1
Q5	203 5 5100 53670	Transistor, 2SC536	1
R1	RD1 8 4251 JV000	Carbon 180k ohm 1/4W ±5%	1
R2	RD2 2 2251 JV000	Carbon 2.2k ohm 1/4W ±5%	1
R3	RD2 2 0251 JV000	Carbon 22 ohm 1/4W ±5%	1
R4	RD4 7 2251 JV000	Carbon 4.7k ohm 1/4W ±5%	1
R5	RD2 2 2251 JV000	Carbon 2.2k ohm 1/4W ±5%	1
R6	RD4 7 2251 JV000	Carbon 4.7k ohm 1/4W ±5%	1
R7	RD4 7 3251 JV000	Carbon 47k ohm 1/4W ±5%	1
R8	RD2 2 2251 JV000	Carbon 2.2k ohm 1/4W ±5%	1
R9	RD3 3 1251 JV000	Carbon 330 ohm 1/4W ±5%	1
R10	RD3 3 1251 JV000	Carbon 330 ohm 1/4W ±5%	1
R11	RD2 7 2251 JV000	Carbon 2.7k ohm 1/4W ±5%	1
R12	RD2 7 2251 JV000	Carbon 2.7k ohm 1/4W ±5%	1
R13	RD5 6 2251 JV000	Carbon 5.6k ohm 1/4W ±5%	1
R14	RD5 6 2251 JV000	Carbon 5.6k ohm 1/4W ±5%	1
R15	RD1 0 4251 JV000	Carbon 100k ohm 1/4W ±5%	1
R16	RD5 6 2251 JV000	Carbon 5.6k ohm 1/4W ±5%	1
R17	RD2 2 0251 JV000	Carbon 22 ohm 1/4W ±5%	1
R18	RD3 9 0251 JV000	Carbon 39 ohm 1/4W ±5%	1
R19	RD4 7 3251 JV000	Carbon 47k ohm 1/4W ±5%	1
R20	RD1 2 4251 JV000	Carbon 120k ohm 1/4W ±5%	1
T1	4 2542 00010	Output Transformer	1
P1	4 2229 22671	Semi-fixed Resistor (B-5k)	1
P2	4 2229 23880	Semi-fixed Resistor (B-4.7k)	1
P3	4 2229 22910	Semi-fixed Resistor (B-1k)	1

REMOTE CONTROLE TRANSMITTER EXPLODED VIEW

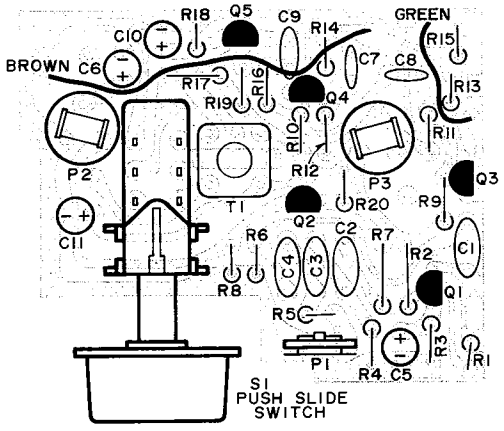


REMOTE CONTROL TRANSMITTER SCHEMATIC DIAGRAM

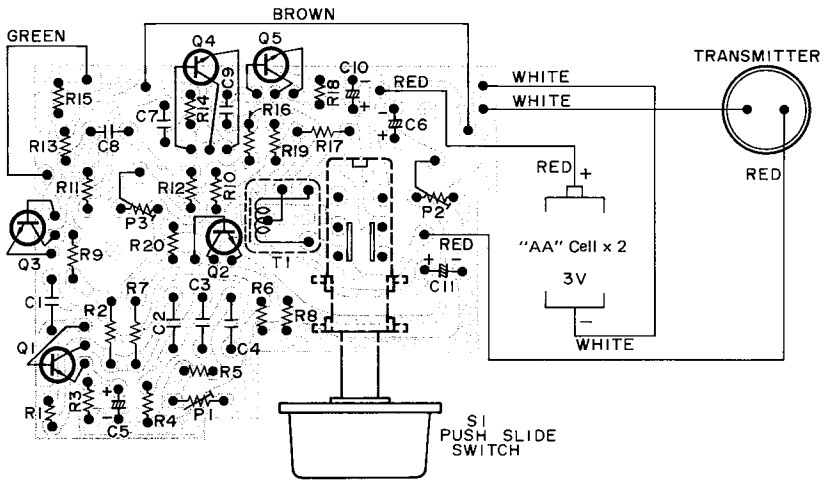


REMOTE CONTROL TRANSMITTER P.C.BOARD

(Top View)



(Bottom View)



PARTS LIST

Ref. No.	Part No.	Description	Q'ty
	PACKAGE		
	141 6 1419 39900	Individual Carton	1
	141 6 1449 52400	Styrofoam Case	1
	141 6 1449 55000	Styrofoam Case	1
	141 6 1449 55700	Styrofoam Pad	1
	141 6 2519 07690	Fan Bag	1
	141 6 2519 08490	Poly Cover	1
	141 6 2519 10015	Poly Cover	1
	141 6 2519 10018	Poly Cover	1
	141 6 2519 10022	Poly Cover	1
	141 6 3919 36300	Plain Pad	1
	141 6 4419 12601	Control Tag	1
	141 6 4559 02300	Serial No. Sheet	1
	141 6 4799 14700	Month Label, Brown (Jan., Feb.)	1
	141 6 4799 14701	Month Label, Red (Mar., Apr.)	1
	141 6 4799 14702	Month Label, Green (May, Jun.)	1
	141 6 4799 14703	Month Label, Blue (Jul., Aug.)	1
	141 6 4799 14704	Month Label, Orange (Sep., Oct.)	1
	141 6 4799 14705	Month Label, Violet (Nov., Dec.)	1
	141 6 4559 00100	Serial No. Sheet	1
	ACCESSORIES		
	4 1922 00010	Remote Control Transmitter Assy	1
	4 2369 70571	Patch Cord	2
	131 2 7103 27800	Label	1
	131 6 4319 10802	Service Station List	1
	131 6 4519 14400	Warranty Card	1
	141 6 4119 77600	Instruction Manual	1
	141 6 4729 09800	Caution Label	2
	CABINET		
	141 2 4539 03200	Fiber Washer	3
	141 2 3119 11000	Cabinet Chassis	1
T601	4 2519 72650	Power Transformer	1
	141 2 3719 04400	Transformer Cover	1
	141 2 3719 04200	Power Transformer Bracket	1
	141 2 4569 06800	Washer, Transformer	2
	4 2439 70892	Power Cord	1
	141 2 3899 06800	Cord Holder	1
	141 2 3899 06900	Clamp, Power Cord	1
	141 2 3519 38400	P.C.B. Bracket	1
	141 0 1119 56100	Front Panel Complete	1
	141 2 3529 16801	Spacer	3
	141 2 1119 50500	Rear Panel	1
	141 2 1119 50400	Cover	1
	141 2 4539 12400	Washer	4
	141 2 3519 41300	Circuit Bracket	1
	141 2 1259 02400	Panel Sheet	1
	141 2 1539 10100	Blind	1
	141 2 1449 39900	Blind Cover	1
	141 2 1249 19000	Dust Cover	1
	141 0 1539 00500	Head Cover Assy	1
	141 2 7519 38900	Snap	2
S11	4 2319 73200	Power Switch	1
C610	4 2239 70220	Capacitor 0.01 μ	1
	4 2379 70110	Solderless Terminal	1
	141 2 1149 19102	Frame	1
	141 2 1149 19101	Frame	1
	141 0 3779 00400	Support P.C.B. Assy	1
	141 2 4469 27900	Cushion	2
	141 2 4469 26700	Indicator Cushion	2
	141 0 1619 24400	Switch Knob Assy	7
	141 2 1619 52900	Reset Button	1
	141 2 1639 26400	Knob	1
	141 2 1639 26500	Knob	1
	131 2 1801 13200	Leg	4
	131 2 4201 17800	Screw, Ground	1
	143 3 1903 00611	Screw, Brazier Hd. Tapping-2 +M3.0x6	10
	131 3 1303 00511	Screw, Pan Hd. C SW +M3.0x5	6
	101 3 1303 00611	Screw, Pan Hd. +M3.0x6	1

Ref. No.	Part No.	Description	Q'ty
	CABINET		
	131 3 1303 00611	Screw, Pan Hd. C SW +M3.0x6	4
	101 3 1304 00811	Screw, Pan Hd. +M4.0x8	2
	104 3 1303 01411	Screw, Pan Hd. Tapping-3 +M3.0x14	2
	143 3 1903 01411	Screw, Brazier Hd. Tapping-2 +M3.0x14	4
	101 3 1303 00511	Screw, Pan Hd. +M3.0x5	4
	143 3 1903 00811	Screw, Brazier Hd. Tapping-2 +M3.0x8	3
	143 3 1903 00618	Screw, Brazier Hd. Tapping-2 +M3.0x6	11
	143 3 1903 00818	Screw, Brazier Hd. Tapping-2 +M3.0x8	2
	110 3 1203 00013	Finished Washer M3.0	1
	101 3 1704 00518	Screw, Bind Hd. +M4.0x5	4
	101 3 1303 00611	Screw, Pan Hd. +M3.0x6	2
	101 3 1203 00811	Screw, Flat Hd. +M3.0x8	2
	101 3 1202 60411	Screw, Flat Hd. +M2.6x4	2
	143 3 1903 00618	Screw, Brazier Hd. Tapping-2 +M3.0x6	4
	PAUSE INDICATOR P.C.B. ASSY		
	4 1329 74220	Pause Indicator P.C.B. Assy	1
D517	4 2029 70720	Diode, SLP-132B	1
	4 2269 30720	Indicator P.C.B.	1
	AMPLIFIER BASE P.C.B. ASSY		
	4 1329 74160	Amplifier Base P.C.B. Assy	1
	141 2 3779 10600	P.C.B. Clamp	4
CN4	4 2369 71480	Connector 3P	1
CN5	4 2369 71850	Connector 4P	1
CN6	4 2359 72150	Connector 9P	4
CN7	4 2359 72350	Connector 4P	1
CN9	4 2369 71850	Connector 4P	1
CN11	4 2359 73990	Connector 3P Assy	1
CN21	4 2359 74000	Connector 3P Assy	1
CN25	4 2359 716000	Connector 6P	1
C101	CC1 0 1500 KE00C	Ceramic 100pF 50V ±10%	1
C102	CM5 6 3500 K00SV	Mylar 0.056μF 50V ±10%	1
C103	CM1 5 3500 K00SV	Mylar 0.015μF 50V ±10%	1
C104	CD2 2 563A 0000V	Electrolytic 2.2μF 6.3V	1
C105	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C106	CD1 0 5160 0000V	Electrolytic 1μF 16V	1
C107	CD3 3 663A 0000V	Electrolytic 33μF 6.3V	1
C108	CC1 5 1500 KE00C	Ceramic 150pF 50V ±10%	1
C109	CD1 0 6250 0000V	Electrolytic 10μF 25V	1
C110	CD1 0 6250 0000V	Electrolytic 10μF 25V	1
C111	CD1 0 6250 0000V	Electrolytic 10μF 25V	1
C112	CC4 7 1500 KE00C	Ceramic 470pF 50V ±10%	1
C113	CD1 0 6250 0000V	Electrolytic 10μF 25V	1
C114	CD1 0 6250 0000V	Electrolytic 10μF 25V	1
C115	CD1 0 5250 0000V	Electrolytic 1μF 25V	1
C116	CD1 0 5160 0000V	Electrolytic 1μF 16V	1
C117	CC4 7 1500 KE00C	Ceramic 470pF 50V ±10%	1
C118	CD1 0 5250 0000V	Electrolytic 1μF 25V	1
C119	CC1 0 1500 KE00C	Ceramic 100pF 50V ±10%	1
C120	CD1 0 6250 0000V	Electrolytic 10μF 25V	1
C121	CT1 0 4160 K00DV	Tantalum 0.1μF 16V ±10%	1
C122	CD1 0 763A 0000V	Electrolytic 100μF 6.3V	1
C123	CC4 7 0500 KE00C	Ceramic 47pF 50V ±10%	1
C124	CM1 8 2500 K00SV	Mylar 0.0018μF 50V ±10%	1
C125	CM1 0 2500 K00SV	Mylar 0.001μF 50V ±10%	1
C126	CD3 3 663A 0000V	Electrolytic 33μF 6.3V	1
C128	CD1 0 6250 0000V	Electrolytic 10μF 25V	1
C130	CD2 2 5100 0000V	Electrolytic 2.2μF 10V	1
C131	CT1 5 4350 K00DV	Tantalum 0.15μF 35V ±10%	1
C132	CC1 0 1500 KE00C	Ceramic 100pF 50V ±10%	1
C139	CC1 0 1500 KE00C	Ceramic 100pF 50V ±10%	1
C151	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C152	CC4 7 1500 KE00C	Ceramic 470pF 50V ±10%	1
C153	CD1 0 6160 0000V	Electrolytic 10μF 16V	1

PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
AMPLIFIER BASE P.C.B. ASSY			
C154	CC3 9 0500 KE00C	Ceramic 39PF 50V ±10%	1
C155	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C156	CD1 0 7250 0000V	Electrolytic 100μF 25V	1
C161	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C162	CC4 7 1500 KE00C	Ceramic 470PF 50V ±10%	1
C163	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C164	CC3 9 0500 KE00C	Ceramic 39PF 50V ±10%	1
C165	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C170	CD4 7 5160 0000V	Electrolytic 4.7μF 16V	1
C190	CC3 9 0500 KE00C	Ceramic 39PF 50V ±10%	1
C201	CC1 0 1500 KE00C	Ceramic 100PF 50V ±10%	1
C202	CM5 6 3500 K00SV	Mylar 0.056μF 50V ±10%	1
C203	CM1 5 3500 K00SV	Mylar 0.015μF 50V ±10%	1
C204	CD2 2 563A 0000V	Electrolytic 2.2μF 6.3V	1
C205	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C206	CD1 0 5160 0000V	Electrolytic 1μF 16V	1
C207	CD3 3 663A 0000V	Electrolytic 33μF 6.3V	1
C208	CC1 5 1500 KE00C	Ceramic 150pF 50V ±10%	1
C209	CD1 0 6250 0000V	Electrolytic 10μF 25V	1
C210	CD1 0 6250 0000V	Electrolytic 10μF 25V	1
C211	CD1 0 6250 0000V	Electrolytic 10μF 25V	1
C212	CC4 7 1500 KE00C	Ceramic 470pF 50V ±10%	1
C213	CD1 0 6250 0000V	Electrolytic 10μF 25V	1
C214	CD1 0 6250 0000V	Electrolytic 10μF 25V	1
C215	CD1 0 5250 0000V	Electrolytic 1μF 25V	1
C216	CD1 0 5160 0000V	Electrolytic 1μF 16V	1
C217	CC4 7 1500 KE00C	Ceramic 470pF 50V ±10%	1
C218	CD1 0 5250 0000V	Electrolytic 1μF 25V	1
C219	CC1 0 1500 KE00C	Ceramic 100pF 50V ±10%	1
C220	CD1 0 6250 0000V	Electrolytic 10μF 25V	1
C221	CT1 0 4160 K00DV	Tantalum 0.1μF 16V ±10%	1
C222	CD1 0 763A 0000V	Electrolytic 100μF 6.3V	1
C223	CC4 7 0500 KE00C	Ceramic 47pF 50V ±10%	1
C224	CM1 8 2500 K00SV	Mylar 0.0018μF 50V ±10%	1
C225	CM1 0 2500 K00SV	Mylar 0.001μF 50V ±10%	1
C226	CD3 3 663A 0000V	Electrolytic 33μF 6.3V	1
C228	CD1 0 6250 0000V	Electrolytic 10μF 25V	1
C230	CD2 2 5100 0000V	Electrolytic 2.2μF 10V	1
C231	CT1 5 4350 K00DV	Tantalum 0.15μF 35V ±10%	1
C232	CC1 0 1500 KE00C	Ceramic 100pF 50V ±10%	1
C239	CC1 0 1500 KE00C	Ceramic 100pF 50V ±10%	1
C251	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C252	CC4 7 1500 KE00C	Ceramic 470pF 50V ±10%	1
C253	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C254	CC3 9 0500 KE00C	Ceramic 39pF 50V ±10%	1
C255	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C256	CD1 0 7250 0000V	Electrolytic 100μF 25V	1
C261	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C262	CC4 7 1500 KE00C	Ceramic 470pF 50V ±10%	1
C263	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C264	CC3 9 0500 KE00C	Ceramic 39pF 50V ±10%	1
C265	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C270	CD4 7 5160 0000V	Electrolytic 4.7μF 16V	1
C290	CC3 9 0500 KE00C	Ceramic 39pF 50V ±10%	1
C301	CD1 0 7250 0000V	Electrolytic 100μF 25V	1
C302	CD1 0 7160 0000V	Electrolytic 100μF 16V	1
C303	CD4 7 7350 0000V	Electrolytic 470μF 35V	1
C304	CD2 2 7350 0000V	Electrolytic 220μF 35V	1
C305	CD4 7 6250 0000V	Electrolytic 47μF 25V	1
C306	CD1 0 7160 0000V	Electrolytic 100μF 16V	1
C310	CD1 0 7350 0000V	Electrolytic 100μF 35V	1
D101	4 2029 70160	Diode, 1S953	1
D102	202 5 9110 18820	Diode, 1S188	1
D103	202 5 9110 18820	Diode, 1S188	1
D104	202 5 9110 18820	Diode, 1S188	1
D105	4 2029 70160	Diode, 1S953	1
D107	4 2029 70160	Diode, 1S953	1
D110	202 5 9110 18820	Diode, 1S188	1
D201	4 2029 70160	Diode, 1S953	1
D202	202 5 9110 18820	Diode, 1S188	1

Ref. No.	Part No.	Description	Q'ty
AMPLIFIER BASE P.C.B. ASSY			
D203	202 5 9110 18820	Diode, 1S188	1
D204	202 5 9110 18820	Diode, 1S188	1
D205	4 2029 70160	Diode, 1S953	1
D207	4 2029 70160	Diode, 1S953	1
D210	202 5 9110 18820	Diode, 1S188	1
IC101	4 2069 70400	IC, TA7139P	1
IC102	4 2069 70400	IC, TA7139P	1
IC103	4 2069 70410	IC, TA7129P	1
IC201	4 2069 70400	IC, TA7139P	1
IC202	4 2069 70400	IC, TA7139P	1
IC203	4 2069 70410	IC, TA7129P	1
L104	4 2559 70030	Coil 33 mH	1
L204	4 2559 70030	Coil 33 mH	1
J1	4 2359 71242	Jack 1P (Microphone)	1
J2	4 2359 71242	Jack 1P (Microphone)	1
J3	4 2359 71243	Jack 1P	1
J4	4 2359 73600	Jack 2P (Line In)	1
J5	4 2359 73600	Jack 2P (Line Out)	1
UN302	4 2589 71430	OSC Block	1
UN301	4 1329 74170	EQ Record Unit P.C.B. Assy	1
UN7	4 1329 74230	Lamp Wire Unit P.C.B. Assy	1
UN101	4 1329 74181	DOLBY NR Unit P.C.B. Assy	1
UN102	4 1329 74181	DOLBY NR Unit P.C.B. Assy	1
UN201	4 1329 74181	DOLBY NR Unit P.C.B. Assy	1
UN202	4 1329 74181	DOLBY NR Unit P.C.B. Assy	1
P102	4 2229 72967	Potentiometer 103 (B-10k)	1
P103	4 2229 72967	Potentiometer 103 (B-10k)	1
P104	4 2229 72967	Potentiometer 103 (B-10k)	1
P105	4 2229 72967	Potentiometer 103 (B-10k)	1
P106	4 2229 72967	Potentiometer 103 (B-10k)	1
P107	4 2229 72967	Potentiometer 103 (B-10k)	1
P108	4 2229 72972	Potentiometer 204 (B-200k)	1
P109	4 2229 72972	Potentiometer 204 (B-200k)	1
P110	4 2229 72972	Potentiometer 204 (B-200k)	1
P201	4 2229 72968	Potentiometer 203 (B-20k)	1
P202	4 2229 72967	Potentiometer 103 (B-10k)	1
P203	4 2229 72967	Potentiometer 103 (B-10k)	1
P204	4 2229 72967	Potentiometer 103 (B-10k)	1
P205	4 2229 72967	Potentiometer 103 (B-10k)	1
P206	4 2229 72967	Potentiometer 103 (B-10k)	1
P207	4 2229 72967	Potentiometer 103 (B-10k)	1
P208	4 2229 72972	Potentiometer 204 (B-200k)	1
P209	4 2229 72972	Potentiometer 204 (B-200k)	1
P210	4 2229 72972	Potentiometer 204 (B-200k)	1
Q101	203 5 5100 53650	Transistor, 2SC536	1
Q102	203 5 5100 69352	Transistor, 2SC693	1
Q103	203 5 5100 53650	Transistor, 2SC536	1
Q104	203 5 5100 69352	Transistor, 2SC693	1
Q105	203 5 5100 53650	Transistor, 2SC536	1
Q106	203 5 5100 69352	Transistor, 2SC693	1
Q107	203 5 5100 69352	Transistor, 2SC693	1
Q111	203 5 5100 53650	Transistor, 2SC536	1
Q112	203 5 5100 53650	Transistor, 2SC536	1
Q113	203 5 5100 53650	Transistor, 2SC536	1
Q114	203 5 5100 53650	Transistor, 2SC536	1
Q201	203 5 5100 53650	Transistor, 2SC536	1
Q202	203 5 5100 69352	Transistor, 2SC693	1
Q203	203 5 5100 53650	Transistor, 2SC536	1
Q204	203 5 5100 69352	Transistor, 2SC693	1
Q205	203 5 5100 69352	Transistor, 2SC693	1
Q206	203 5 5100 69352	Transistor, 2SC693	1
Q207	203 5 5100 69352	Transistor, 2SC693	1
Q211	203 5 5100 53650	Transistor, 2SC536	1
Q212	203 5 5100 53650	Transistor, 2SC536	1
Q213	203 5 5100 53650	Transistor, 2SC536	1
Q214	203 5 5100 53650	Transistor, 2SC536	1
	4 2369 70740	RT Pin	8
RE1	4 2329 70180	Relay (Record/Play)	1
RE2	4 2329 70180	Relay (Record/Play)	1
R101	RD3 9 3251 KV000	Carbon 39k ohm 1/4W ±10%	1

PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
AMPLIFIER BASE P.C.B. ASSY			
R102	RD1 6 2251 JV000	Carbon 1.6k ohm 1/4W ±5%	1
R103	RD3 9 2251 KV000	Carbon 3.9k ohm 1/4W ±10%	1
R104	RD5 6 2251 KV000	Carbon 5.6k ohm 1/4W ±10%	1
R105	RD3 9 2251 KV000	Carbon 3.9k ohm 1/4W ±10%	1
R106	RD3 3 3251 KV000	Carbon 33k ohm 1/4W ±10%	1
R107	RD3 9 4251 KV000	Carbon 390k ohm 1/4W ±10%	1
R108	RD2 2 3251 KV000	Carbon 22k ohm 1/4W ±10%	1
R109	RD1 0 3251 KV000	Carbon 10k ohm 1/4W ±10%	1
R110	RD4 7 1251 KV000	Carbon 470 ohm 1/4W ±10%	1
R111	RD4 7 3251 KV000	Carbon 47k ohm 1/4W ±10%	1
R112	RD1 5 3251 KV000	Carbon 15k ohm 1/4W ±10%	1
R113	RD1 5 2251 KV000	Carbon 1.5k ohm 1/4W ±10%	1
R114	RD1 0 4251 KH000	Carbon 100k ohm 1/4W ±10%	1
R115	RD1 0 4251 KH000	Carbon 100k ohm 1/4W ±10%	1
R117	RD1 0 2251 KH000	Carbon 1k ohm 1/4W ±10%	1
R118	RD1 5 4251 KV000	Carbon 150k ohm 1/4W ±10%	1
R119	RD3 9 3251 KV000	Carbon 39k ohm 1/4W ±10%	1
R120	RD3 3 2251 KV000	Carbon 3.3k ohm 1/4W ±10%	1
R121	RD1 5 2251 KV000	Carbon 1.5k ohm 1/4W ±10%	1
R122	RD4 7 3251 KV000	Carbon 47k ohm 1/4W ±10%	1
R123	RD1 0 2251 KH000	Carbon 1k ohm 1/4W ±10%	1
R124	RD1 2 4251 KV000	Carbon 120k ohm 1/4W ±10%	1
R125	RD1 0 4251 KV000	Carbon 100k ohm 1/4W ±10%	1
R126	RD3 3 2251 KV000	Carbon 3.3k ohm 1/4W ±10%	1
R127	RD1 0 4251 KV000	Carbon 100k ohm 1/4W ±10%	1
R128	RD2 2 3251 KV000	Carbon 22k ohm 1/4W ±10%	1
R129	RD1 0 2251 KV000	Carbon 1k ohm 1/4W ±10%	1
R130	RD4 7 1251 KV000	Carbon 470 ohm 1/4W ±10%	1
R131	RD1 0 3251 KV000	Carbon 10k ohm 1/4W ±10%	1
R132	RD5 6 4251 KV000	Carbon 560k ohm 1/4W ±10%	1
R133	RD2 2 4251 KV000	Carbon 220k ohm 1/4W ±10%	1
R134	RD2 7 4251 KV000	Carbon 270k ohm 1/4W ±10%	1
R135	RD1 0 3251 KV000	Carbon 10k ohm 1/4W ±10%	1
R136	RD2 2 3251 KV000	Carbon 22k ohm 1/4W ±10%	1
R138	RD3 9 2251 KV000	Carbon 3.9k ohm 1/4W ±10%	1
R139	RD2 2 3251 KV000	Carbon 22k ohm 1/4W ±10%	1
R140	RD1 0 2251 KV000	Carbon 1k ohm 1/4W ±10%	1
R141	RD1 0 4251 KV000	Carbon 100k ohm 1/4W ±10%	1
R142	RD3 3 4251 KV000	Carbon 330k ohm 1/4W ±10%	1
R143	RD3 9 3251 KV000	Carbon 39k ohm 1/4W ±10%	1
R144	RD2 4 3251 JV000	Carbon 24k ohm 1/4W ±5%	1
R147	RD3 0 3251 JV000	Carbon 30k ohm 1/4W ±5%	1
R148	RD5 6 2251 KV000	Carbon 5.6k ohm 1/4W ±10%	1
R149	RD1 0 4251 KH000	Carbon 100k ohm 1/4W ±10%	1
R150	RD3 3 4251 KV000	Carbon 330k ohm 1/4W ±10%	1
R152	RD1 0 4251 KV000	Carbon 100k ohm 1/4W ±10%	1
R153	RD1 0 4251 KH000	Carbon 100k ohm 1/4W ±10%	1
R154	RD6 8 3251 KV000	Carbon 68k ohm 1/4W ±10%	1
R155	RD1 5 1251 KV000	Carbon 150 ohm 1/4W ±10%	1
R156	RD1 8 2251 KV000	Carbon 1.8k ohm 1/4W ±10%	1
R157	RD2 2 3251 KV000	Carbon 22k ohm 1/4W ±10%	1
R158	RD5 1 2251 KV000	Carbon 5.1k ohm 1/4W ±10%	1
R159	RD3 9 2251 KV000	Carbon 3.9k ohm 1/4W ±10%	1
R160	RD5 6 2251 KV000	Carbon 5.6k ohm 1/4W ±10%	1
R162	RD1 0 4251 KV000	Carbon 100k ohm 1/4W ±10%	1
R163	RD8 2 4251 KV000	Carbon 820k ohm 1/4W ±10%	1
R164	RD5 6 2251 KV000	Carbon 5.6k ohm 1/4W ±10%	1
R165	RD3 3 3251 KV000	Carbon 33k ohm 1/4W ±10%	1
R171	RD3 3 3251 KV000	Carbon 33k ohm 1/4W ±10%	1
R174	RD3 3 3251 KV000	Carbon 33k ohm 1/4W ±10%	1
R180	RD1 0 0251 KV000	Carbon 10 ohm 1/4W ±10%	1
R181	RD1 0 4251 KV000	Carbon 100k ohm 1/4W ±10%	1
R201	RD3 9 3251 KV000	Carbon 39k ohm 1/4W ±10%	1
R202	RD1 6 2251 JV000	Carbon 1.6k ohm 1/4W ±5%	1
R203	RD3 9 2251 KV000	Carbon 3.9k ohm 1/4W ±10%	1
R204	RD5 6 2251 KV000	Carbon 5.6k ohm 1/4W ±10%	1
R205	RD3 9 2251 KV000	Carbon 3.9k ohm 1/4W ±10%	1
R206	RD3 3 3251 KV000	Carbon 33k ohm 1/4W ±10%	1
R207	RD3 9 4251 KV000	Carbon 390k ohm 1/4W ±10%	1
R208	RD2 2 3251 KV000	Carbon 22k ohm 1/4W ±10%	1

Ref. No.	Part No.	Description	Q'ty
AMPLIFIER BASE P.C.B. ASSY			
R209	RD1 0 3251 KV000	Carbon 10k ohm 1/4W ±10%	1
R210	RD4 7 1251 KV000	Carbon 470 ohm 1/4W ±10%	1
R211	RD4 7 3251 KV000	Carbon 47k ohm 1/4W ±10%	1
R212	RD1 5 3251 KV000	Carbon 15k ohm 1/4W ±10%	1
R213	RD1 5 2251 KV000	Carbon 1.5k ohm 1/4W ±10%	1
R214	RD1 0 4251 KH000	Carbon 100k ohm 1/4W ±10%	1
R215	RD1 0 4251 KH000	Carbon 100k ohm 1/4W ±10%	1
R217	RD1 0 2251 KH000	Carbon 1k ohm 1/4W ±10%	1
R218	RD1 5 4251 KV000	Carbon 150k ohm 1/4W ±10%	1
R219	RD3 9 3251 KV000	Carbon 39k ohm 1/4W ±10%	1
R220	RD3 3 2251 KV000	Carbon 3.3k ohm 1/4W ±10%	1
R221	RD1 5 2251 KV000	Carbon 1.5k ohm 1/4W ±10%	1
R222	RD4 7 3251 KV000	Carbon 47k ohm 1/4W ±10%	1
R223	RD1 0 2251 KH000	Carbon 1k ohm 1/4W ±10%	1
R224	RD1 2 4251 KV000	Carbon 120k ohm 1/4W ±10%	1
R225	RD1 0 4251 KV000	Carbon 100k ohm 1/4W ±10%	1
R226	RD3 3 2251 KV000	Carbon 3.3k ohm 1/4W ±10%	1
R227	RD1 0 4251 KV000	Carbon 100k ohm 1/4W ±10%	1
R228	RD2 2 3251 KV000	Carbon 22k ohm 1/4W ±10%	1
R229	RD1 0 2251 KV000	Carbon 1k ohm 1/4W ±10%	1
R230	RD4 7 1251 KV000	Carbon 470 ohm 1/4W ±10%	1
R231	RD1 0 3251 KV000	Carbon 10k ohm 1/4W ±10%	1
R232	RD5 6 4251 KV000	Carbon 560k ohm 1/4W ±10%	1
R233	RD2 2 4251 KV000	Carbon 220k ohm 1/4W ±10%	1
R234	RD2 7 4251 KV000	Carbon 270k ohm 1/4W ±10%	1
R235	RD1 0 3251 KV000	Carbon 10k ohm 1/4W ±10%	1
R236	RD2 2 3251 KV000	Carbon 22k ohm 1/4W ±10%	1
R238	RD3 9 2251 KV000	Carbon 3.9k ohm 1/4W ±10%	1
R239	RD2 2 3251 KV000	Carbon 22k ohm 1/4W ±10%	1
R240	RD1 0 2251 KV000	Carbon 1k ohm 1/4W ±10%	1
R241	RD1 0 4251 KV000	Carbon 100k ohm 1/4W ±10%	1
R242	RD3 3 4251 KV000	Carbon 330k ohm 1/4W ±10%	1
R243	RD3 9 3251 KV000	Carbon 39k ohm 1/4W ±10%	1
R244	RD2 4 3251 JV000	Carbon 24k ohm 1/4W ±5%	1
R247	RD3 0 3251 JV000	Carbon 30k ohm 1/4W ±5%	1
R249	RD1 0 4251 KH000	Carbon 100k ohm 1/4W ±10%	1
R250	RD3 3 4251 KV000	Carbon 330k ohm 1/4W ±10%	1
R252	RD1 0 4251 KV000	Carbon 100k ohm 1/4W ±10%	1
R253	RD1 0 4251 KH000	Carbon 100k ohm 1/4W ±10%	1
R254	RD6 8 3251 KV000	Carbon 68k ohm 1/4W ±10%	1
R255	RD1 5 1251 KV000	Carbon 150 ohm 1/4W ±10%	1
R256	RD1 8 2251 KV000	Carbon 1.8k ohm 1/4W ±10%	1
R257	RD2 2 3251 KV000	Carbon 22k ohm 1/4W ±10%	1
R258	RD5 1 2251 KV000	Carbon 5.1k ohm 1/4W ±10%	1
R259	RD3 9 2251 KV000	Carbon 3.9k ohm 1/4W ±10%	1
R260	RD5 6 2251 KV000	Carbon 5.6k ohm 1/4W ±10%	1
R262	RD1 0 4251 KV000	Carbon 100k ohm 1/4W ±10%	1
R263	RD8 2 4251 KV000	Carbon 820k ohm 1/4W ±10%	1
R264	RD5 6 2251 KV000	Carbon 5.6k ohm 1/4W ±10%	1
R265	RD3 3 3251 KV000	Carbon 33k ohm 1/4W ±10%	1
R271	RD3 3 3251 KV000	Carbon 33k ohm 1/4W ±10%	1
R274	RD3 3 3251 KV000	Carbon 33k ohm 1/4W ±10%	1
R280	RD1 0 0251 KV000	Carbon 10 ohm 1/4W ±10%	1
R281	RD1 0 4251 KV000	Carbon 100k ohm 1/4W ±10%	1
R301	RD5 6 2251 KV000	Carbon 5.6k ohm 1/4W ±10%	1
R302	RH3 3 1102 KH000	Metal 330 ohm 1W ±10%	1
R303	RH3 3 1102 KH000	Metal 330 ohm 1W ±10%	1
R304	RD1 2 2251 KV000	Carbon 1.2k ohm 1/4W ±10%	1
R305	RD1 8 3251 KH000	Carbon 18k ohm 1/4W ±10%	1
R306	RD1 0 0251 KH000	Carbon 10 ohm 1/4W ±10%	1
R307	RD1 8 2251 KV000	Carbon 1.8k ohm 1/4W ±10%	1
R308	RH1 0 1102 KH000	Metal 100 ohm 1W ±10%	1
R309	RH1 0 1102 KH000	Metal 100 ohm 1W ±10%	1
R310	RH6 8 1102 KH000	Metal 680 ohm 1W ±10%	1
R311	RH2 7 1102 KH000	Metal 270 ohm 1W ±10%	1
R312	RH1 5 1102 KH000	Metal 150 ohm 1W ±10%	1
R313	RD6 8 2251 KV000	Carbon 6.8k ohm 1/4W ±10%	1
R320	RD1 8 2251 KV000	Carbon 1.8k ohm 1/4W ±10%	1
S1	4 2319 73190	Slide Switch Lever (DOLBY FM)	1
S2	4 2319 73180	Slide Switch Lever (DOLBY NR)	1

PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
	WIRE LAMP UNIT P.C.B. ASSY		
	4 1329 74230	Wire Lamp Unit P.C.B. Assy	1
	4 2369 71740	Connector 4P	1
	4 2269 30660	Wire Lamp P.C.B.	1
	DOLBY NR UNIT P.C.B. ASSY		
	4 1329 74181	DOLBY NR Unit P.C.B. Assy	1
CN6	4 2369 71520	Connector 9P	1
C1	CD1 0 5160 0000V	Electrolytic 1μF 16V	1
C2	CC2 2 1500 KE00C	Ceramic 220pF 50V ±10%	1
C4	CD2 2 7160 0000V	Electrolytic 220μF 16V	1
C5	CM4 7 2500 K00SV	Mylar 0.0047μF 50V ±10%	1
C6	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C7	CM5 6 2500K00SV	Mylar 0.0056μF 50V ±10%	1
C8	CM2 7 3500 K00SV	Mylar 0.027μF 50V ±10%	1
C9	CA3 3 4100 K000V	Aluminum 0.33μF 10V ±10%	1
C10	CA1 0 4100 K000V	Aluminum 0.1μF 10V ±10%	1
C11	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C12	CM4 7 3500 K00SV	Mylar 0.047μF 50V ±10%	1
C17	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C18	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C19	CC2 2 2500 KE00C	Ceramic 0.0022μF 50V ±10%	1
IC1	4 2069 70210	IC, NE645B	1
	141 2 4729 04700	Staple 10	1
L1	4 2729 70190	DOLBY Filter Coil	1
R1	RD1 0 2251 KV000	Carbon 1k ohm 1/4W ±10%	1
R2	RD3 3 2251 KV000	Carbon 3.3k ohm 1/4W ±10%	1
R3	RD1 0 2251 KV000	Carbon 1k ohm 1/4W ±10%	1
R4	RD4 7 3251 KV000	Carbon 47k ohm 1/4W ±10%	1
R5	RD1 8 1251 KV000	Carbon 180 ohm 1/4W ±10%	1
R6	RD2 7 4251 KV000	Carbon 270k ohm 1/4W ±10%	1
R11	RD1 0 5251 KV000	Carbon 1M ohm 1/4W ±10%	1
R12	RD2 0 4251 JV000	Carbon 200k ohm 1/4W ±5%	1
R13	RD1 0 5251 KV000	Carbon 1M ohm 1/4W ±10%	1
	AMPLIFIER CONTROL P.C.B. ASSY		
	4 1329 74190	Amplifier Control P.C.B. Assy	1
CN10	4 2359 72110	Connector 3P	1
CN11	4 2359 72110	Connector 3P	1
CN12	4 2359 72110	Connector 3P	1
CN13	4 2359 72110	Connector 3P	1
CN14	4 2359 72500	Connector 4P	1
CN16	4 2359 72520	Connector 7P	1
CN17	4 2359 72110	Connector 3P	1
C501	CD1 0 7100 0000V	Electrolytic 100μF 10V	1
C502	CC1 0 2500 KE00C	Ceramic 0.001μF 50V ±10%	1
C503	CC1 0 2500 KE00C	Ceramic 0.001μF 50V ±10%	1
C504	CM5 6 3500 K00SV	Mylar 0.056μF 50V ±10%	1
C505	CC1 0 2500 KE00C	Ceramic 0.001μF 50V ±10%	1
C506	CM6 8 3500 K00SV	Mylar 0.068μF 50V ±10%	1
C507	CS8 2 1500 K000V	Polystyrol 820pF 50V ±10%	1
C508	CS1 2 2500 K000V	Polystyrol 1200pF 50V ±10%	1
C509	CM3 3 2500 K00SV	Mylar 0.0033μF 50V ±10%	1
C510	CM3 3 2500 K00SV	Mylar 0.0033μF 50V ±10%	1
C511	CM1 5 3500 K00SV	Mylar 0.015μF 50V ±10%	1
C512	CM1 5 3500 K00SV	Mylar 0.015μF 50V ±10%	1
C513	CM1 0 4500 K00SV	Mylar 0.1μF 50V ±10%	1
C514	CM1 0 4500 K00SV	Mylar 0.1μF 50V ±10%	1
C515	CM3 3 3500 K00SV	Mylar 0.033μF 50V ±10%	1
C516	CT4 7 663A K00DV	Tantalum 47μF 6.3V ±10%	1
C523	CD1 0 7160 0000V	Electrolytic 100μF 16V	1
C524	CD4 7 6100 0000V	Electrolytic 47μF 10V	1
C525	CT1 0 5250 M00DV	Tantalum 1μF 25V ±20%	1
C527	CD1 0 6160 0000V	Electrolytic 10μF 16V	1
C528	CM4 7 3500 K00SV	Mylar 0.047μF 50V ±10%	1
C529	CM6 8 3500 K00SV	Mylar 0.068μF 50V ±10%	1
C530	CD4 7 6160 0000V	Electrolytic 47μF 16V	1
C531	CD2 2 7160 0000V	Electrolytic 220μF 16V	1
C533	CD3 3 7160 0000V	Electrolytic 330μF 16V	1
C534	CD3 3 7100 0000V	Electrolytic 330μF 10V	1
C535	CD1 0 7160 0000V	Electrolytic 100μF 16V	1

Ref. No.	Part No.	Description	Q'ty
	AMPLIFIER BASE P.C.B. ASSY		
S3	4 2319 73350	Slide Switch (Bias)	1
S4	4 2319 73171	Slide Switch Lever (EQ)	1
S5	4 2319 73170	Slide Switch Lever (Input Select)	1
S6	4 2319 73160	Slide Switch Lever (Monitor)	1
S7	4 2319 72800	Slide Switch (De-emphasis)	1
	4 2319 73340	Slide Switch Lever (for Bias Switch)	1
	141 2 4629 00700	Flexible Wire (for Bias Switch)	1
T101	4 2549 70150	Matching Transformer	1
T201	4 2549 70150	Matching Transformer	1
VR1	4 2229 71762	Volume Control (Input Level)	1
VR2	4 2229 71590	Volume Control (DOBLY FM Cont.)	1
	141 2 3769 05101	Spacer, Jack	3
	141 2 4729 04400	Staple 12.5	40
	EQ RECORD UNIT P.C.B. ASSY		
	4 1329 74170	EQ Record Unit P.C.B. Assy	1
CN25	4 2369 71090	Connector 6P	1
C127	CM6 8 3500 K00SV	Mylar 0.068μF 50V ±10%	1
C129	CM4 7 3500 K00SV	Mylar 0.047μF 50V ±10%	1
C133	CM2 2 3500 K00SV	Mylar 0.022μF 50V ±10%	1
C134	CM2 2 3500 K00SV	Mylar 0.022μF 50V ±10%	1
C136	CM4 7 3500 K00SV	Mylar 0.047μF 50V ±10%	1
C137	CM1 8 3500 K00SV	Mylar 0.018μF 50V ±10%	1
C227	CM6 8 3500 K00SV	Mylar 0.068μF 50V ±10%	1
C229	CM4 7 3500 K00SV	Mylar 0.047μF 50V ±10%	1
C233	CM2 2 3500 K00SV	Mylar 0.022μF 50V ±10%	1
C234	CM2 2 3500 K00SV	Mylar 0.022μF 50V ±10%	1
C236	CM4 7 3500 K00SV	Mylar 0.047μF 50V ±10%	1
C237	CM1 8 3500 K00SV	Mylar 0.018μF 50V ±10%	1
D106	4 2029 70160	Diode, 1S953	1
D108	4 2029 70160	Diode, 1S953	1
D109	4 2029 70160	Diode, 1S953	1
D206	4 2029 70160	Diode, 1S953	1
D208	4 2029 70160	Diode, 1S953	1
D209	4 2029 70160	Diode, 1S953	1
L101	4 2729 70120	Peaking Coil 4.7 mH	1
L102	4 2729 70080	Peaking Coil 3.9 mH	1
L103	4 2729 70140	Peaking Coil 3.3 mH	1
L201	4 2729 70120	Peaking Coil 4.7 mH	1
L202	4 2729 70080	Peaking Coil 3.9 mH	1
L203	4 2729 70140	Peaking Coil 3.3 mH	1
Q115	203 5 5100 53650	Transistor, 2SC536	1
Q116	203 5 5100 53650	Transistor, 2SC536	1
Q117	203 5 5100 53650	Transistor, 2SC536	1
Q215	203 5 5100 53650	Transistor, 2SC536	1
Q216	203 5 5100 53650	Transistor, 2SC536	1
Q217	203 5 5100 53650	Transistor, 2SC536	1
R163	RD1 2 1251 KV000	Carbon 120 ohm 1/4W ±10%	1
R165	RD1 5 3251 KV000	Carbon 15k ohm 1/4W ±10%	1
R166	RD4 7 2251 KV000	Carbon 4.7k ohm 1/4W ±10%	1
R167	RD5 6 0251 KV000	Carbon 56 ohm 1/4W ±10%	1
R168	RD2 0 2251 JV000	Carbon 2.0k ohm 1/4W ±5%	1
R169	RD8 2 0251 KV000	Carbon 82 ohm 1/4W ±10%	1
R170	RD3 9 2251 KV000	Carbon 3.9k ohm 1/4W ±10%	1
R172	RD3 3 3251 KV000	Carbon 33k ohm 1/4W ±10%	1
R173	RD3 3 3251 KV000	Carbon 33k ohm 1/4W ±10%	1
R175	RD3 3 3251 KV000	Carbon 33k ohm 1/4W ±10%	1
R263	RD1 2 1251 KV000	Carbon 120 ohm 1/4W ±10%	1
R265	RD1 5 3251 KV000	Carbon 15k ohm 1/4W ±10%	1
R266	RD4 7 2251 KV000	Carbon 4.7k ohm 1/4W ±10%	1
R267	RD5 6 0251 KV000	Carbon 56 ohm 1/4W ±10%	1
R268	RD2 0 2251 JV000	Carbon 2.0k ohm 1/4W ±5%	1
R269	RD8 2 0251 KV000	Carbon 82 ohm 1/4W ±10%	1
R270	RD3 9 2251 KV000	Carbon 3.9k ohm 1/4W ±10%	1
R272	RD3 3 3251 KV000	Carbon 33k ohm 1/4W ±10%	1
R273	RD3 3 3251 KV000	Carbon 33k ohm 1/4W ±10%	1
R275	RD3 3 3251 KV000	Carbon 33k ohm 1/4W ±10%	1

PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
	AMPLIFIER CONTROL P.C.B. ASSY		
C536	CD4 7 6160 0000V	Electrolytic 47μF 16V	1
C537	CD1 0 7160 0000V	Electrolytic 100μF 16V	1
C538	CD4 7 6160 0000V	Electrolytic 47μF 16V	1
C539	CT4 7 5100 M00DV	Tantalum 4.7μF 10V ±20%	1
C540	CM2 2 3500 K00SV	Mylar 0.022μF 50V ±10%	1
C541	CD2 2 6160 0000V	Electrolytic 22μF 16V	1
C701	CM2 2 3500 K00SV	Mylar 0.022μF 50V ±10%	1
D501	202 5 9531 01010	Diode, WG1010A	1
D502	202 5 9531 01010	Diode, WG1010A	1
D503	202 5 9531 01010	Diode, WG1010A	1
D504	202 5 9531 01010	Diode, WG1010A	1
D505	202 5 9531 01010	Diode, WG1010A	1
D506	202 5 9531 01010	Diode, WG1010A	1
D507	202 5 9531 01010	Diode, WG1010A	1
D508	202 5 9531 01010	Diode, WG1010A	1
D509	202 5 9531 01010	Diode, WG1010A	1
D511	202 5 9410 010101	Diode, 10D-1	1
D513	202 5 9531 01010	Diode, WG1010A	1
D514	4 2029 70430	Diode, WZ-061	1
D515	202 5 9531 01010	Diode, WG1010A	1
D516	202 5 9531 01010	Diode, WG1010A	1
D518	202 5 9531 01010	Diode, WG1010A	1
D519	202 5 9531 01010	Diode, WG1010A	1
D520	202 5 9531 01010	Diode, WG1010A	1
D701	205 5 9050 44310	Diode, DS443	1
L701	4 2539 70030	RF Coil Choke	1
P501	4 2229 72968	Potentiometer 203 (B-20k)	1
Q501	203 5 5100 53650	Transistor, 2SC536	1
Q502	203 5 5100 53650	Transistor, 2SC536	1
Q503	203 5 5100 53650	Transistor, 2SC536	1
IC501	4 2069 70300	IC, LM3900	1
IC502	4 2069 70390	IC, TC9121P	1
Q506	203 5 5100 53650	Transistor, 2SC536	1
Q507	203 5 6800 65950	Transistor, 2SA659	1
Q508	203 5 6900 40050	Transistor, 2SD400	1
Q509	203 5 6900 40050	Transistor, 2SD400	1
Q510	203 5 5100 53650	Transistor, 2SC536	1
Q511	203 5 6900 40050	Transistor, 2SD400	1
Q512	203 5 6900 40050	Transistor, 2SD400	1
Q513	203 5 6900 40050	Transistor, 2SD400	1
Q514	203 5 6900 40050	Transistor, 2SD400	1
Q515	203 5 6900 40050	Transistor, 2SD400	1
Q516	203 5 5100 53650	Transistor, 2SC536	1
Q517	203 5 6800 65950	Transistor, 2SA659	1
Q518	203 5 5100 53650	Transistor, 2SC536	1
Q519	203 5 5100 53650	Transistor, 2SC536	1
Q701	203 5 0200 18720	Transistor, 2SB187	1
R314	RH1 0 1102 KH000	Metal 100 ohm 1W ±10%	1
R501	RD3 3 3251 KV000	Carbon 33k ohm 1/4W ±10%	1
R502	RD1 0 3251 KV000	Carbon 10k ohm 1/4W ±10%	1
R503	RD1 0 1251 KV000	Carbon 100 ohm 1/4W ±10%	1
R504	RD3 3 4251 KV000	Carbon 330k ohm 1/4W ±10%	1
R505	RD3 3 4251 KV000	Carbon 330k ohm 1/4W ±10%	1
R506	RD4 7 2251 KV000	Carbon 4.7k ohm 1/4W ±10%	1
R507	RD2 2 2251 KV000	Carbon 2.2k ohm 1/4W ±10%	1
R508	RD3 9 3251 KV000	Carbon 39k ohm 1/4W ±10%	1
R509	RD2 2 3251 KV000	Carbon 22k ohm 1/4W ±10%	1
R510	RD1 8 1251 KV000	Carbon 180 ohm 1/4W ±10%	1
R511	RD2 7 1251 KV000	Carbon 270 ohm 1/4W ±10%	1
R512	RD8 2 3251 KV000	Carbon 82k ohm 1/4W ±10%	1
R513	RD8 2 3251 KV000	Carbon 82k ohm 1/4W ±10%	1
R514	RD5 6 3251 KV000	Carbon 56k ohm 1/4W ±10%	1
R515	RD1 0 4251 KV000	Carbon 100k ohm 1/4W ±10%	1
R516	RD3 3 3251 KV000	Carbon 33k ohm 1/4W ±10%	1
R517	RD5 6 3251 KV000	Carbon 56k ohm 1/4W ±10%	1
R518	RD8 2 1251 KV000	Carbon 820 ohm 1/4W ±10%	1
R519	RD1 0 4251 KV000	Carbon 100k ohm 1/4W ±10%	1
R520	RD1 5 4251 KV000	Carbon 150k ohm 1/4W ±10%	1
R521	RD6 8 3251 KV000	Carbon 68k ohm 1/4W ±10%	1
R522	RD2 2 4251 KV000	Carbon 220k ohm 1/4W ±10%	1

Ref. No.	Part No.	Description	Q'ty
	AMPLIFIER CONTROL P.C.B. ASSY		
R523	RD2 2 2251 KV000	Carbon 2.2k ohm 1/4W ±10%	1
R524	RD1 0 5251 KV000	Carbon 1M ohm 1/4W ±10%	1
R525	RD2 2 2251 KV000	Carbon 2.2k ohm 1/4W ±10%	1
R526	RD1 0 2251 KV000	Carbon 1k ohm 1/4W ±10%	1
R527	RD1 0 2251 KV000	Carbon 1k ohm 1/4W ±10%	1
R528	RD1 0 2251 KV000	Carbon 1k ohm 1/4W ±10%	1
R529	RD1 0 2251 KV000	Carbon 1k ohm 1/4W ±10%	1
R530	RD1 0 2251 KV000	Carbon 1k ohm 1/4W ±10%	1
R531	RD1 0 2251 KV000	Carbon 1k ohm 1/4W ±10%	1
R532	RD5 6 2251 KV000	Carbon 5.6k ohm 1/4W ±10%	1
R533	RD1 0 2251 KV000	Carbon 1k ohm 1/4W ±10%	1
R534	RD6 8 1251 KV000	Carbon 680 ohm 1/4W ±10%	1
R536	RD5 6 1251 KV000	Carbon 560 ohm 1/4W ±10%	1
R537	RD1 2 2251 KV000	Carbon 1.2k ohm 1/4W ±10%	1
R538	RD1 0 3251 KV000	Carbon 10k ohm 1/4W ±10%	1
R539	RD1 5 2251 KV000	Carbon 1.5k ohm 1/4W ±10%	1
R540	RD1 0 3251 KV000	Carbon 10k ohm 1/4W ±10%	1
R541	RD1 2 2251 KV000	Carbon 1.2k ohm 1/4W ±10%	1
R543	RD6 8 1251 KV000	Carbon 680 ohm 1/4W ±10%	1
R544	RD3 9 1251 KV000	Carbon 390 ohm 1/4W ±10%	1
R545	RD3 9 3251 KV000	Carbon 39k ohm 1/4W ±10%	1
R546	RD1 5 4251 KV000	Carbon 150k ohm 1/4W ±10%	1
R547	RD2 2 3251 KV000	Carbon 22k ohm 1/4W ±10%	1
R548	RD1 0 3251 KV000	Carbon 10k ohm 1/4W ±10%	1
R549	RD2 2 2251 KV000	Carbon 2.2k ohm 1/4W ±10%	1
R550	RD5 6 0251 KV000	Carbon 56 ohm 1/4W ±10%	1
R551	RD1 0 3251 KV000	Carbon 10k ohm 1/4W ±10%	1
R552	RD2 2 2251 KV000	Carbon 2.2k ohm 1/4W ±10%	1
R554	RD2 2 2251 KV000	Carbon 2.2k ohm 1/4W ±10%	1
R555	RD1 0 0251 KV000	Carbon 10 ohm 1/4W ±10%	1
R556	RD5 6 2251 KV000	Carbon 5.6k ohm 1/4W ±10%	1
R557	RD3 9 2251 KV000	Carbon 3.9k ohm 1/4W ±10%	1
R558	RD2 2 2251 KV000	Carbon 2.2k ohm 1/4W ±10%	1
R559	RD1 2 1251 KV000	Carbon 120 ohm 1/4W ±10%	1
R560	RD1 0 4251 KV000	Carbon 100k ohm 1/4W ±10%	1
R561	RD1 0 3251 KV000	Carbon 10k ohm 1/4W ±10%	1
R562	RD3 3 1251 KV000	Carbon 330 ohm 1/4W ±10%	1
R563	RD2 2 2251 KV000	Carbon 2.2k ohm 1/4W ±10%	1
R564	RD1 0 3251 KV000	Carbon 10k ohm 1/4W ±10%	1
R565	RD5 6 3251 KV000	Carbon 56k ohm 1/4W ±10%	1
R566	RD3 3 2251 KV000	Carbon 3.3k ohm 1/4W ±10%	1
R567	RD1 0 2251 KV000	Carbon 1k ohm 1/4W ±10%	1
R568	RD5 6 3251 KV000	Carbon 56k ohm 1/4W ±10%	1
R569	RH1 2 0202 KH000	Metal 12 ohm 2W ±10%	1
R571	RD1 0 3251 KV000	Carbon 10k ohm 1/4W ±10%	1
R701	RD8 2 1251 KV000	Carbon 820 ohm 1/4W ±10%	1
R702	RD2 2 1251 KV000	Carbon 220 ohm 1/4W ±10%	1
R703	RD8 2 1251 KV000	Carbon 820 ohm 1/4W ±10%	1
R704	RD1 8 1251 KV000	Carbon 180 ohm 1/4W ±10%	1
R705	RD4 7 A251 KV000	Carbon 4.7 ohm 1/4W ±10%	1
R706	RD3 3 2251 KV000	Carbon 3.3k ohm 1/4W ±10%	1
R707	RD5 6 1251 KV000	Carbon 560 ohm 1/4W ±10%	1
S8	4 2319 73210	Push Switch (Function Switch)	1
TH701	204 5 9000 00350	Thermister, SDT35	1
T501	4 2729 70200	Coil	1
T502	4 2729 70200	Coil	1
	4 2269 30690	Control P.C.B.	1
	4 2369 70740	RT Pin	3
	141 2 4729 04400	Staple 12.5	14
	RADIATOR P.C.B. ASSY		
	4 1329 74200	Radiator P.C.B. Assy	1
Q601	203 5 7330 61251	Transistor, 2SD612	1
Q602	203 5 7330 61251	Transistor, 2SD612	1
Q702	203 5 7330 61251	Transistor, 2SD612	1
R542	4 2219 70100	Resistor 33 ohm 5W	1
	141 2 3689 05600	Radiator (for Q601, Q602, Q702)	1
	101 3 1303 00611	Screw, Pan Hd. +M3.0x6	2
	143 3 1903 00611	Screw, Brassiere Hd. Tapping-2 +M3.0x6	3
	201 2 5010 010061	1S313D	3

PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
	POWER SUPPLY P.C.B. ASSY		
	4 1329 74210	Power Supply P.C.B. Assy	1
CN21	4 2359 72110	Connector 3P	1
CN22	4 2359 72110	Connector 3P	1
CN23	4 2359 72110	Connector 3P	1
CN24	4 2359 72070	Connector 6P	1
C601	CD1 0 8500 0001V	Electrolytic 1000μF 50V	1
C602	CD4 7 7350 0001V	Electrolytic 470μF 35V	1
C603	CD4 7 7350 0001V	Electrolytic 470μF 35V	1
C604	CD4 7 7250 0001V	Electrolytic 470μF 25V	1
C605	CD2 2 7250 0001V	Electrolytic 220μF 25V	1
C606	CD1 0 8160 0001V	Electrolytic 1000μF 16V	1
C607	CD1 0 8350 0001V	Electrolytic 1000μF 35V	1
C608	CD1 0 8350 0001V	Electrolytic 1000μF 35V	1
C609	CD1 0 8350 0001V	Electrolytic 1000μF 35V	1
D601	4 2029 70750	Diode, RD30E.B4	1
D602	4 2029 70620	Diode, Bridge	1
D603	4 2029 70620	Diode, Bridge	1
D604	4 2029 70620	Diode, Bridge	1
D605	4 2029 70330	Diode, WZ140	1
R601	RH3 3 A102 KH000	Metal 3.3 ohm	1
R602	RD5 6 A251 KV000	Carbon 5.6 ohm 1/4W ±10%	1
R603	RD5 6 1251 KV000	Carbon 560 ohm 1/4W ±10%	1
R604	RD5 6 1251 KV000	Carbon 560 ohm 1/4W ±10%	1
R605	RD5 6 A251 KV000	Carbon 5.6 ohm 1/4W ±10%	1
R606	RD2 2 1251 KV000	Carbon 220 ohm 1/4W ±10%	1
	MECHANISM		
	141 0 3119 16000	Chassis Assy	1
HD1	141 0 3519 16900	Head Assy	1
HD2	141 0 3519 17000	Erase Head Assy	1
	141 0 5729 02300	Holder Assy	2
	141 2 4179 02800	Nut	2
	141 2 3529 20500	Spacer	1
	141 0 5519 04501	Take-up Idler Assy	1
	141 2 8519 10600	Spring, Slide Base Stopper	1
	141 2 4539 01900	Washer	1
	141 0 5519 03701	Take-up Reel Assy	1
	141 0 5519 03801	Supply Reel Assy	1
	141 2 3519 38200	Fix Holder, Pin	1
	141 2 8219 19600	Guide Ball	3
	141 2 8259 00100	Ball	3
	141 0 7419 19500	Control Plate Assy	1
	141 0 7319 17200	Slide Base Assy	1
	141 0 5459 01100	Pinch Roller Arm Assy	1
	141 2 5419 01500	Pinch Roller	1
	141 2 4539 08900	Washer	2
	141 2 8519 75000	Spring, Pinch Roller	1
	141 0 5459 01200	Pinch Roller Arm Assy	1
	141 0 8219 03200	Guide Tape Assy	1
	141 2 5419 01500	Pinch Roller	1
	141 2 4539 08900	Washer	2
	141 2 8519 75001	Spring, Pinch Roller	1
	141 2 4179 03000	Nylon Nut	1
	141 2 8519 12400	Spring, Shut-off	1
	141 2 3519 38000	Protector Head	1
	141 2 4729 03400	Lug	2
	141 2 8519 33300	Spring, Cassette Case Lock	1
	141 2 8259 00100	Ball	3
	141 2 8219 23901	Guide Ball	1
	141 2 8219 23900	Guide Ball	2
	141 2 7149 02600	Brake	1
	141 2 8519 62900	Spring, Brake	1
	141 0 7419 19600	Contact Lever Assy	1
	141 2 8519 35300	Spring, Slide Base	1
	141 2 7529 68600	Pin, Interlock Lever	1
	141 2 8419 09100	Interlock Lever	1
	141 2 3519 41500	Lock Lever Bracket	1
	141 2 3519 37900	Interlock Switch Bracket	1

Ref. No.	Part No.	Description	Q'ty
	MECHANISM		
S10	4 2319 70511	Micro Switch (Interlock Switch)	1
	141 2 7419 53200	Lever, Cassette Push	1
	141 2 8519 05700	Spring, Slide Arm Power Switch	1
	141 2 4469 25600	Chip, Cassette Push	1
	141 0 3519 14100	Motor Bracket Assy	1
M2	4 5279 70741	Motor (for Reel)	1
	141 2 4459 08201	Motor Cushion	3
	141 2 5649 09100	Belt	1
	141 0 7419 15100	Idler Arm Assy	1
	141 0 5519 04600	Idler Assy	1
	141 2 4539 09300	Washer	1
	141 2 4539 13900	Washer	2
	141 2 8519 63300	Spring, Rewind Roller	1
	141 2 4539 01400	Washer	1
	141 2 3519 29400	Adjustor	1
	141 2 8519 59500	Spring, Wind Idler	1
	141 2 7419 53400	Slide Base Lever	1
	141 2 7419 53300	Solenoid Plate	1
	141 2 4219 06500	Screw	1
SL3	4 2649 70250	Solenoid	1
	141 2 3769 07300	Solenoid Adjustor	1
	141 2 7319 34900	Adjust Plate	1
	141 0 5219 04900	Flywheel Assy	1
	141 2 4539 01500	Washer	4
	141 2 4539 13400	Oil Cut Washer	1
	141 0 5219 04901	Flywheel Assy	1
	141 2 4539 01500	Washer	4
	141 2 4539 13400	Oil Cut Washer	1
	141 2 5649 12700	Belt	1
	141 0 3519 14000	Supporter Assy	1
	141 2 4729 04100	Lug	1
M1	4 5279 70890	Motor (for Capstan)	1
	141 2 3519 37500	Main Motor Bracket	1
	141 2 4459 08200	Motor Cushion	3
	141 2 3789 01400	Motor Spacer	3
	141 0 3519 13900	Lever Angle Assy	1
	141 2 8519 76700	Spring	1
SL1	4 2649 70240	Solenoid (F.F/REW)	1
	141 2 7419 54900	Brake Lever	1
	141 2 3799 02700	Motor Pulley	1
	141 2 4469 19900	Adjust Screw	2
	141 2 4469 02500	Capstan Pad	2
	141 0 3519 14200	Counter Bracket Assy	1
	141 2 4729 00200	Lug	1
	141 2 4729 03400	Lug	1
	141 2 5649 11400	Belt	2
	141 2 8119 05300	Counter (with IC503)	1
	141 0 4469 00200	Cassette Latch Assy	1
	141 0 4469 00201	Cassette Latch Assy	1
	141 2 3519 39100	Lamp Holder Bracket	1
	141 2 4729 00200	Lug	1
	141 2 3739 02900	Lamp Holder	1
D510	202 5 9410 010101	Diode, 10D-1 (for SL1)	1
D512	202 5 9410 010101	Diode, 10D-1 (for SL3)	1
	141 0 6139 01600	Select Button Complete	1
SL2	4 2649 70184	Solenoid	1
S9	4 2319 71330	Micro Switch (Stop Switch)	1
	141 0 3519 13800	Adjust Plate Assy	1
	141 2 4729 00200	Lug	1
	141 2 3519 38100	Select Switch Bracket	1
	141 2 4729 04100	Lug	1
	141 2 4729 00200	Lug	1
	4 2369 72520	Cord Plug Pin	1
PL3	4 6129 70360	Lamp (Cassette)	1
	141 2 4459 21600	Meter Cover	1
	141 0 3739 00100	Indicator Holder Assy (with L.E.D.)	1
D106	4 2029 70530	Diode, SLP-114B (Peak)	1
D206	4 2029 70530	Diode, SLP-114B (Peak)	1
D301	4 2029 70530	Diode, SLP-114B (Record)	1
	141 2 3899 07900	Microphone Holder	1

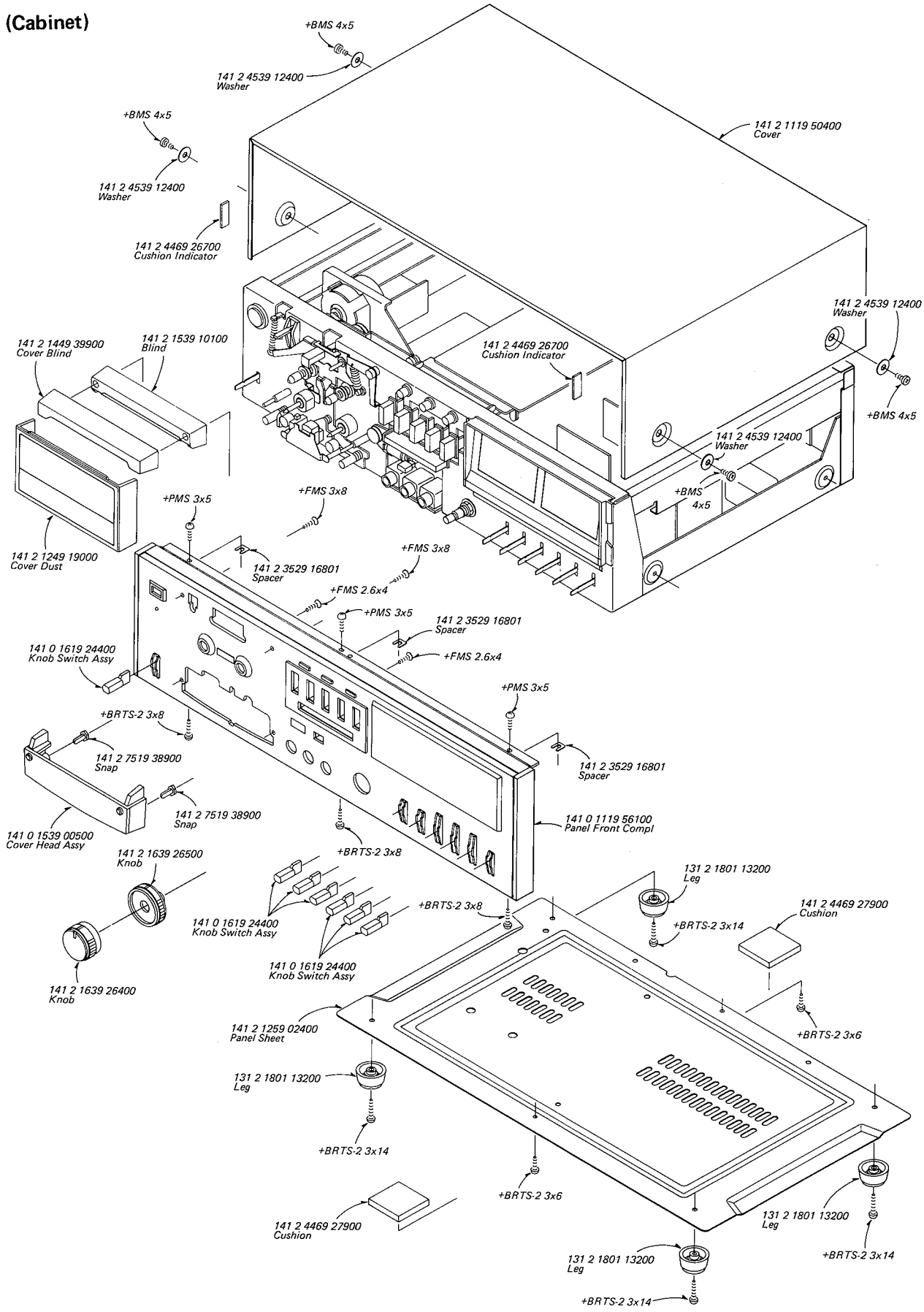
PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
	MECHANISM		
	4 1539 70600	Microphone (Receiver)	1
	141 2 3739 00500	Indicator Holder	3
PL4	4 6129 70340	Lamp (Tape)	1
PL5	4 6129 70340	Lamp (Source)	1
PL6	4 6129 70340	Lamp (Dolby)	1
CN4	4 2359 73980	Connector 3P Assy	1
CN5	4 2359 73970	Connector 4P Assy	1
CN9	4 2359 73960	Connector 4P Assy	1
CN10	4 2359 72988	Connector 3P Assy	1
CN12	4 2359 73003	Connector 3P Assy	1
CN13	4 2359 73002	Connector 3P Assy	1
CN14	4 2359 73701	Connector 3P-4P Assy (with CN22)	1
CN16	4 2359 72862	Connector 7P Assy	1
CN17	4 2359 72989	Connector 3P Assy	1
CN23	4 2359 73001	Connector 3P Assy	1
CN24	4 2359 73191	Connector 6P Assy	1
ME101	4 5119 70510	Indicator Assy (Left)	1
ME201	4 5119 70510	Indicator Assy (Right)	1
	101 3 1302 60311	Screw, Pan Hd. +M2.6x3	15
	101 3 1302 60411	Screw, Pan Hd. +M2.6x4	11
	101 3 1302 00511	Screw, Pan Hd. +M2.0x5	1
	110 3 9350 70025	Washer M3.5x7.0x0.2	2
	101 3 1302 00311	Screw, Pan Hd. +M2.0x3	5
	115 3 1402 00411	Screw, Slotted Hd. M2.0x4	2
	101 3 2502 00811	Screw, Cylinder Hd. -M2.0x8	1
	101 3 1302 01011	Screw, Pan Hd. +M2.0x10	3
	101 3 1202 00411	Screw, Flat Hd. +M2.0x4	1
	110 3 1202 60023	Finished Washer M2.6	6
	101 3 1303 00311	Screw, Pan Hd. +M3.0x3	1
	101 3 1303 00411	Screw, Pan Hd. +M3.0x4	16
	101 3 1303 00611	Screw, Pan Hd. +M3.0x6	6
	101 3 1303 01011	Screw, Pan Hd. +M3.0x10	4
	101 3 1302 00611	Screw, Pan Hd. +M2.0x6	1
	101 3 1302 60511	Screw, Pan Hd. +M2.6x5	4
	101 3 1303 00511	Screw, Pan Hd. +M3.0x5	2
	112 3 1302 00040	E Ring M2.0	2
	112 3 1301 50040	E Ring M1.5	2
	112 3 1302 50040	E Ring M2.5	4
	112 3 1303 00040	E Ring M3.0	4

NOTES: 1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

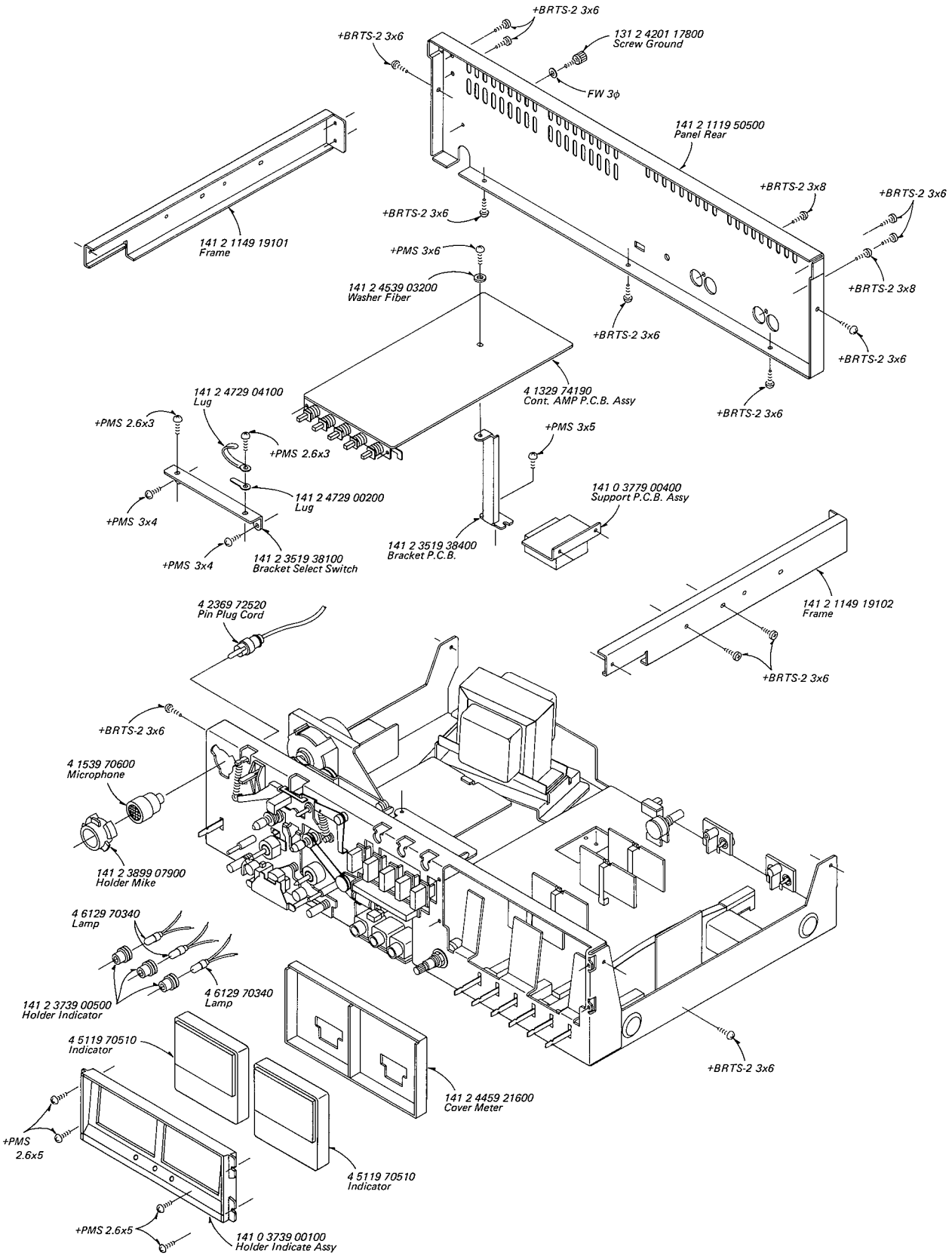
EXPLODED VIEW

(Cabinet)



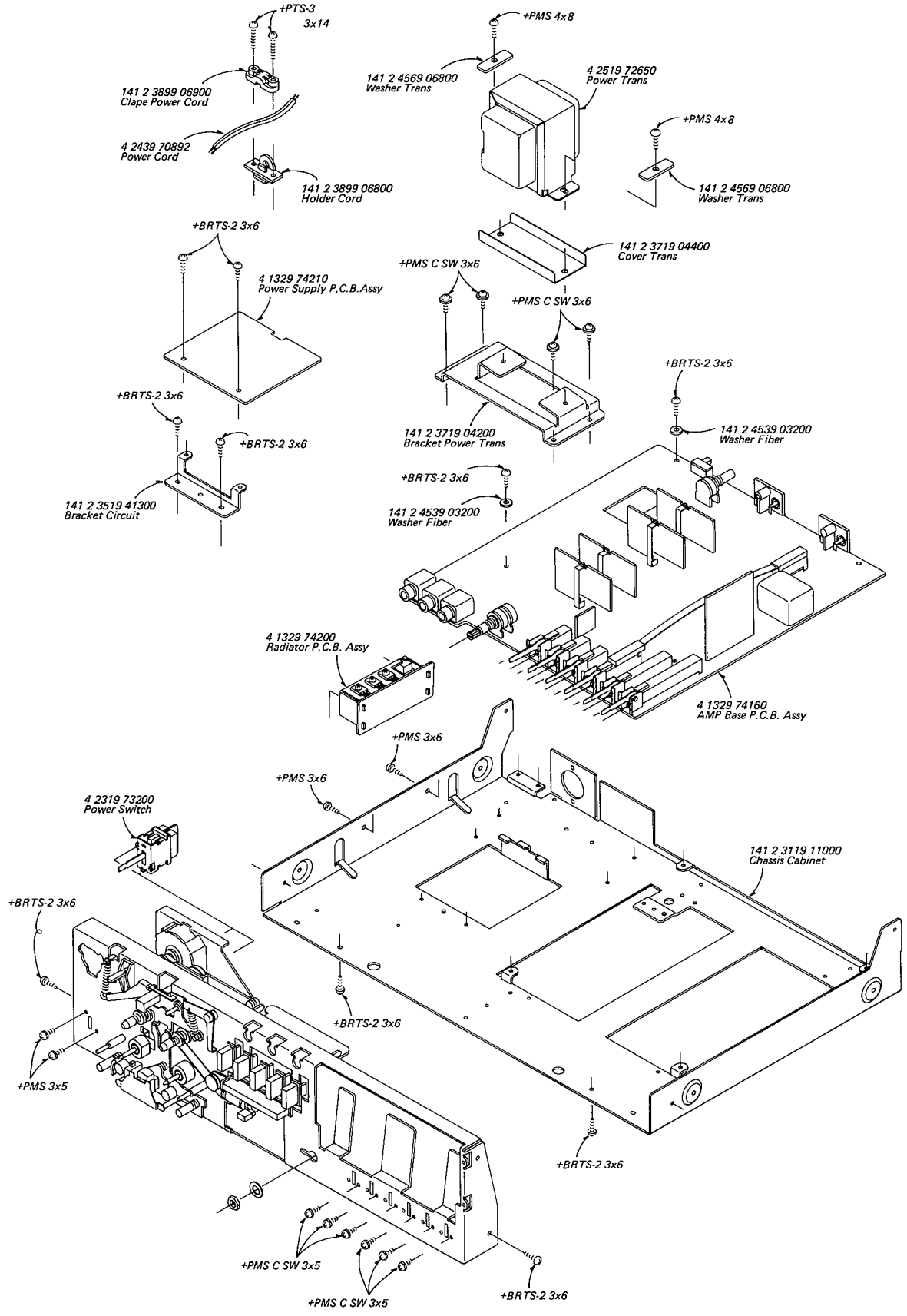
EXPLODED VIEW (Continued)

(Chassis -1)



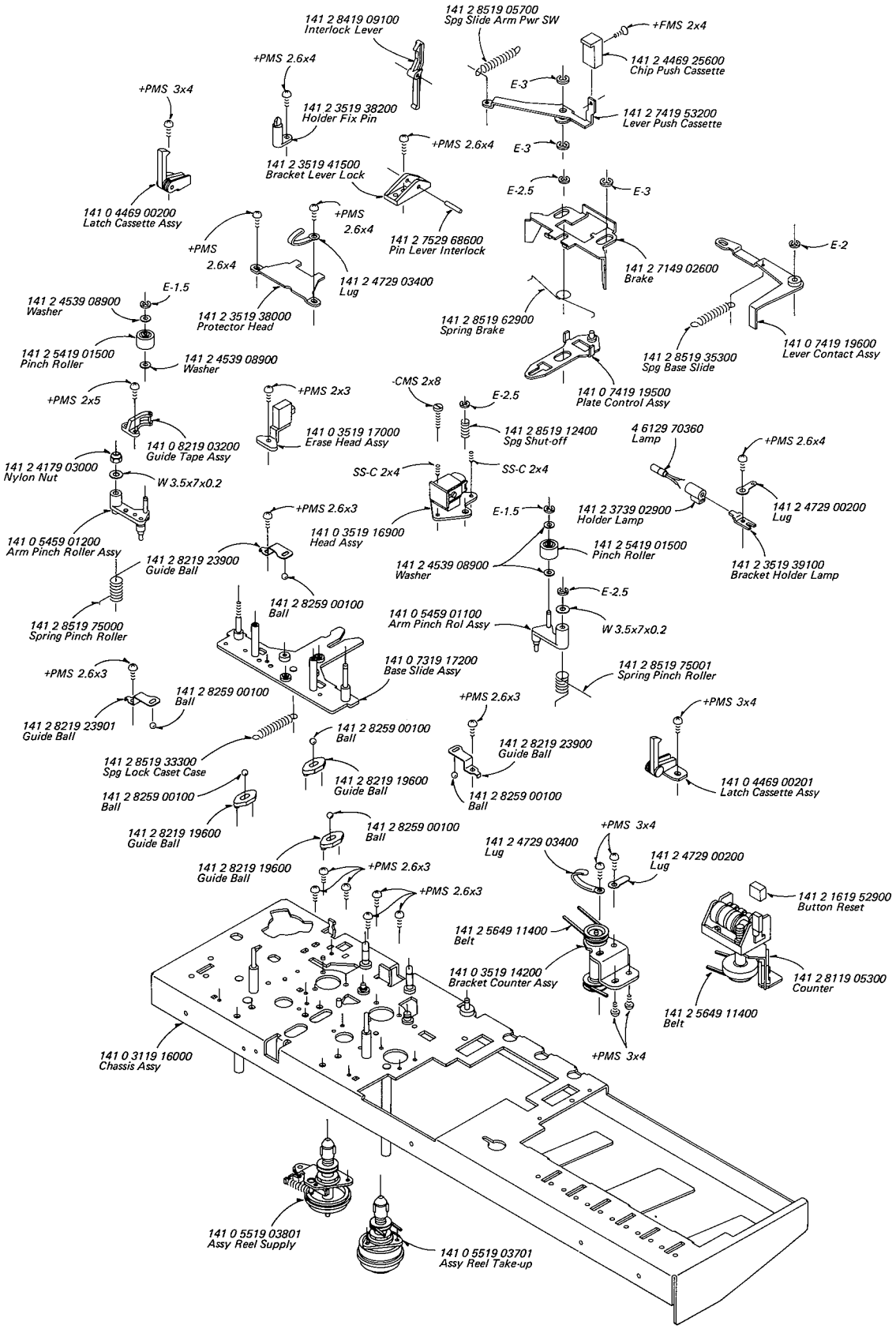
EXPLODED VIEW (Continued)

(Chassis -2)


+PTS-3 3x14
141 2 3899 06900 Clape Power Cord
4 2439 70892 Power Cord
141 2 3899 06800 Holder Cord
+PMS 4x8
141 2 4569 06800 Washer Trans
4 2519 72650 Power Trans
+PMS 4x8
141 2 4569 06800 Washer Trans
141 2 3719 04400 Cover Trans
+BRTS-2 3x6
4 1329 74210 Power Supply P.C.B.Assy
+PMS C SW 3x6
+PMS C SW 3x6
+BRTS-2 3x6
141 2 3719 04200 Bracket Power Trans
+BRTS-2 3x6
+BRTS-2 3x6
141 2 3519 41300 Bracket Circuit
+BRTS-2 3x6
141 2 4539 03200 Washer Fiber
+BRTS-2 3x6
141 2 4539 03200 Washer Fiber
4 1329 74200 Radiator P.C.B. Assy
4 1329 74160 AMP Base P.C.B. Assy
+PMS 3x6
+PMS 3x6
4 2319 73200 Power Switch
141 2 3119 11000 Chassis Cabinet
+BRTS-2 3x6
+BRTS-2 3x6
+PMS 3x5
+BRTS-2 3x6
+PMS C SW 3x5
+PMS C SW 3x5
+BRTS-2 3x6

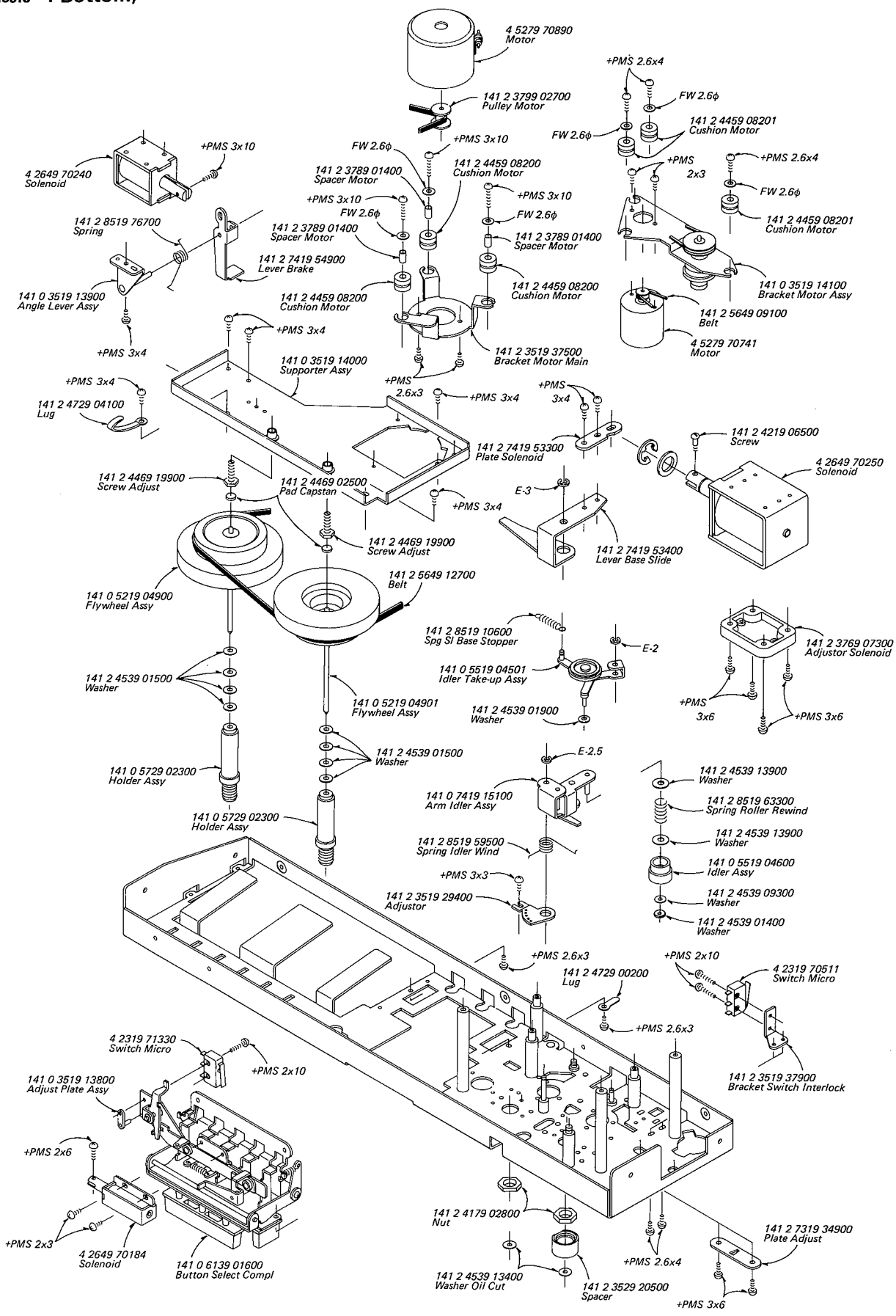
EXPLODED VIEW (Continued)

(Chassis -3 Top)

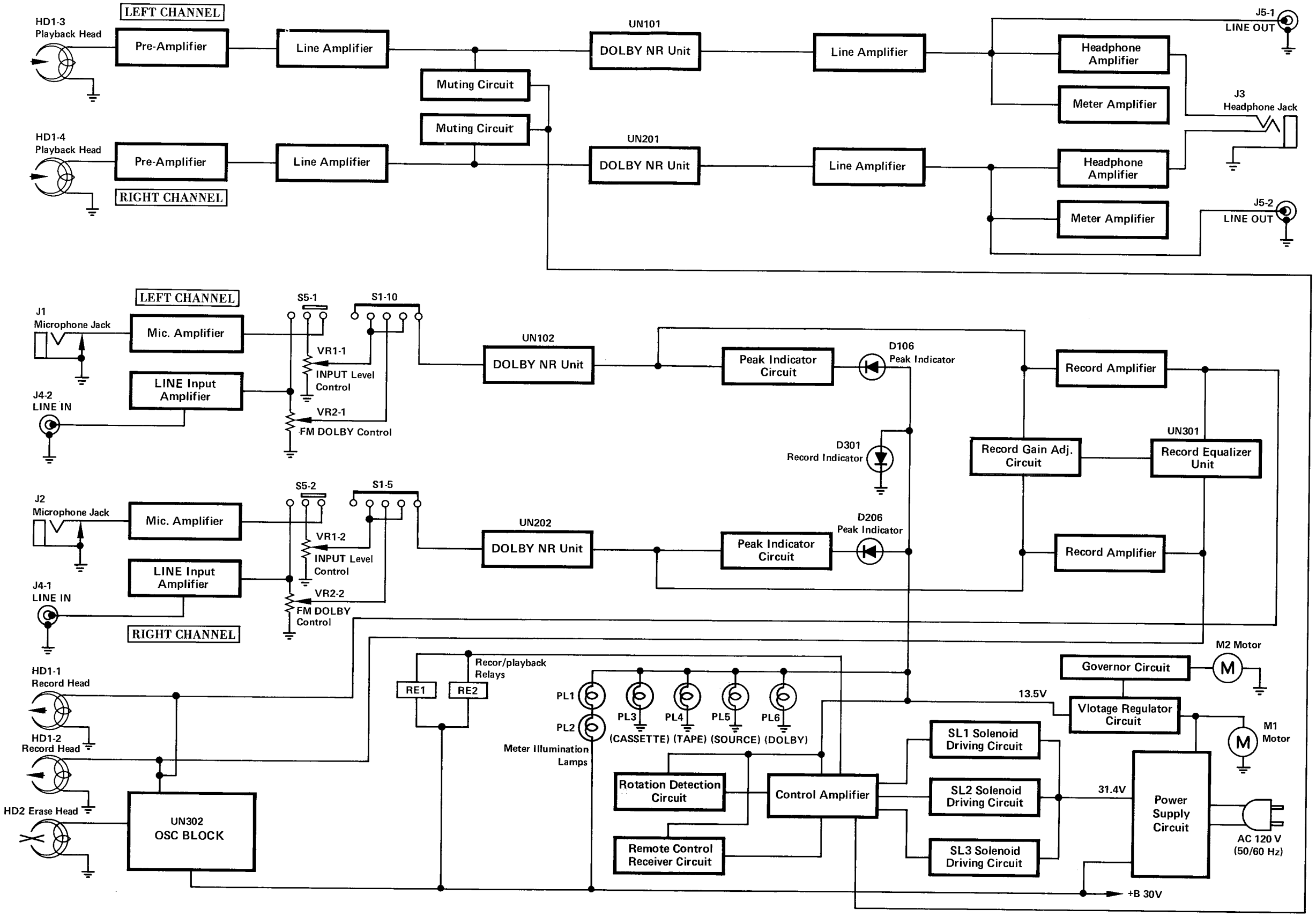


EXPLODED VIEW (Continued)

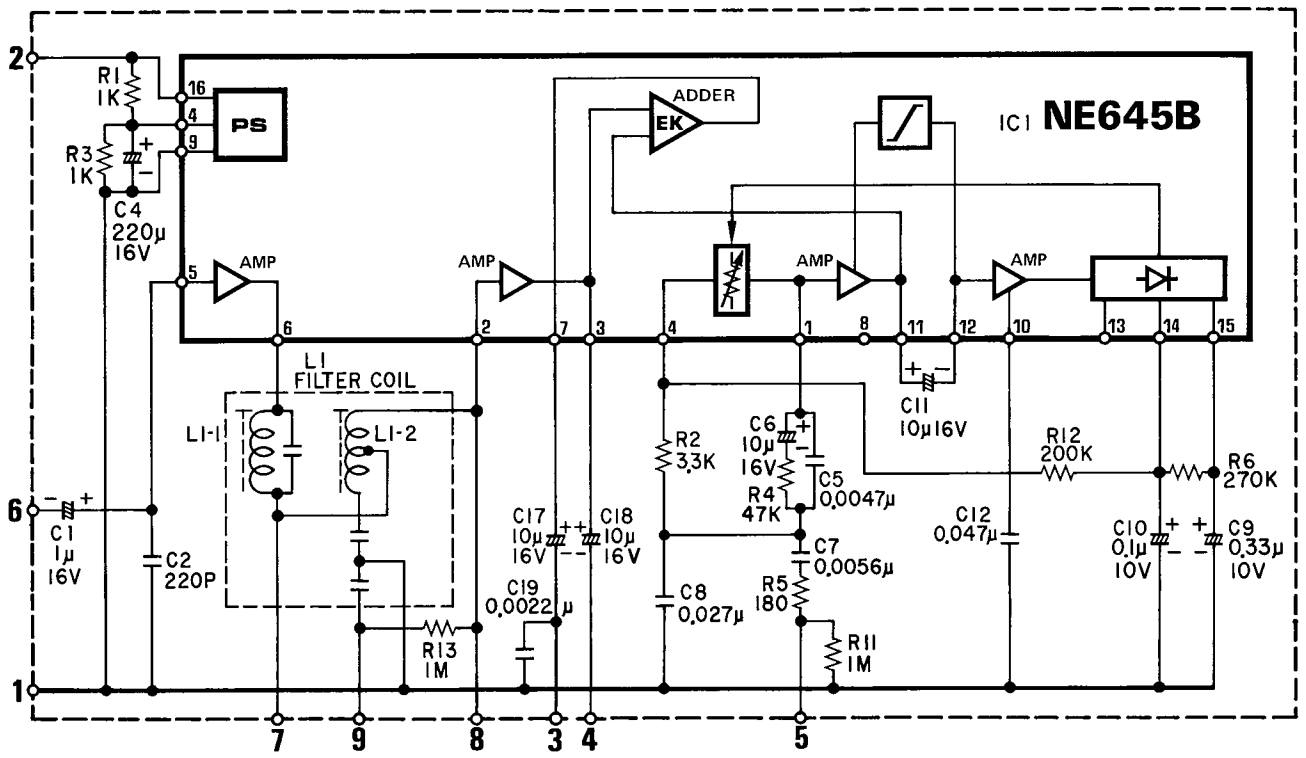
(Chassis -4 Bottom)



BLOCK DIAGRAM

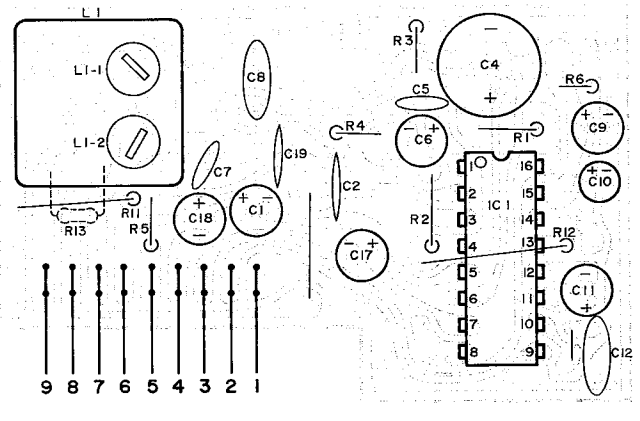


DOLBY NR UNIT SCHEMATIC DIAGRAM

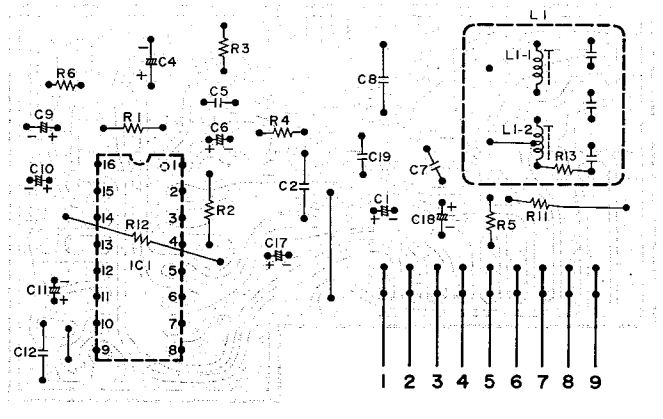


DOLBY NR UNIT P.C.BOARD

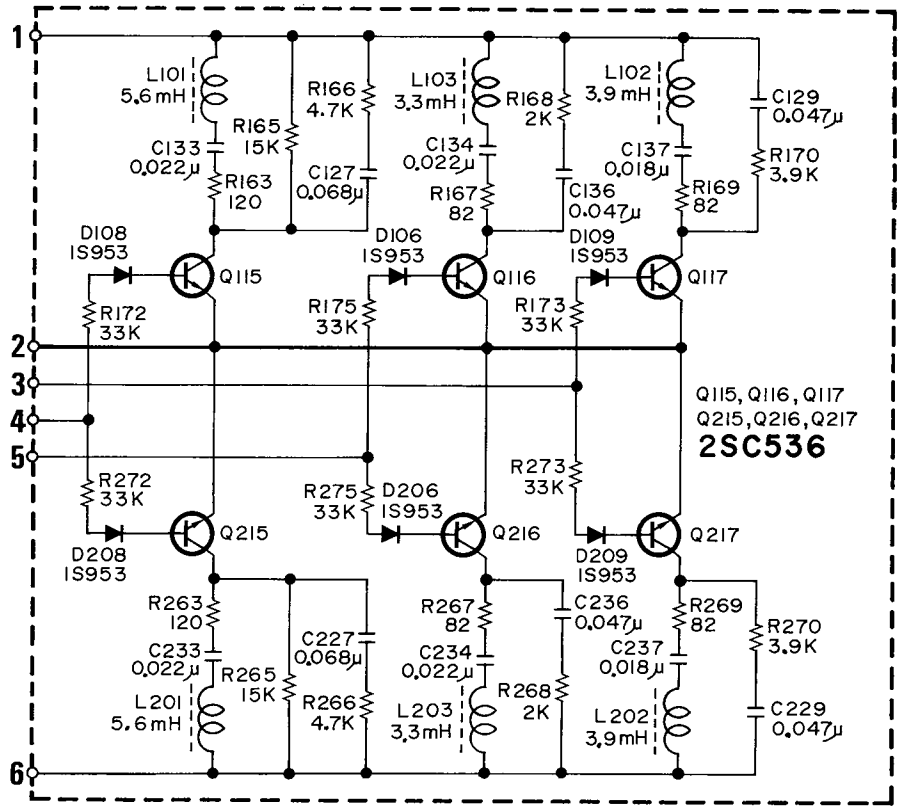
(Top View)



(Bottom View)

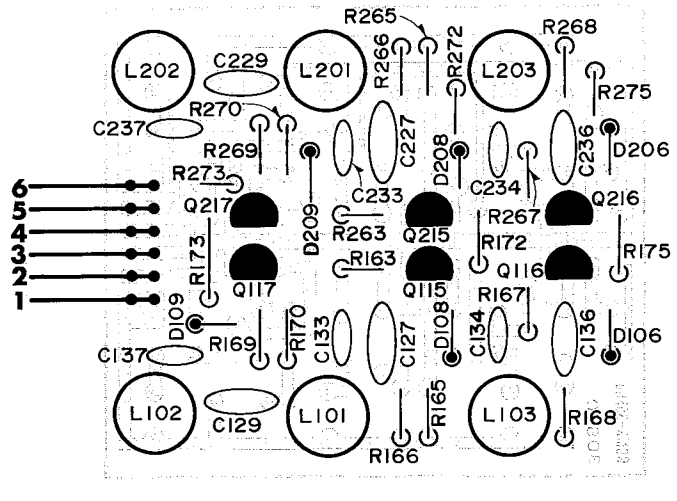


RECORD EQ UNIT SCHEMATIC DIAGRAM

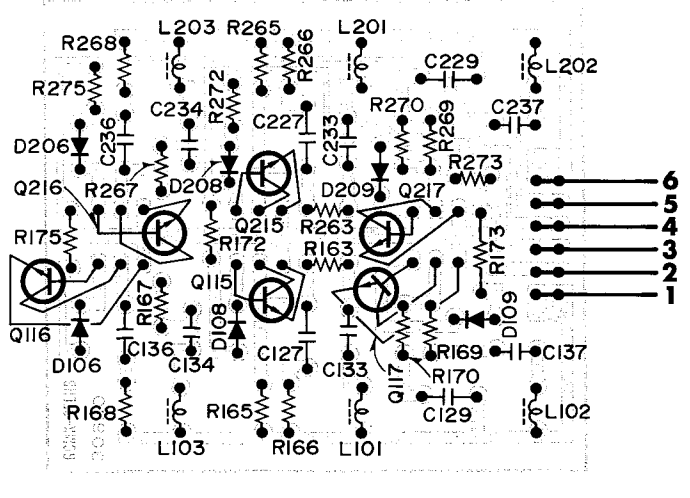


RECORD EQ UNIT P.C.BOARD

(Top View)

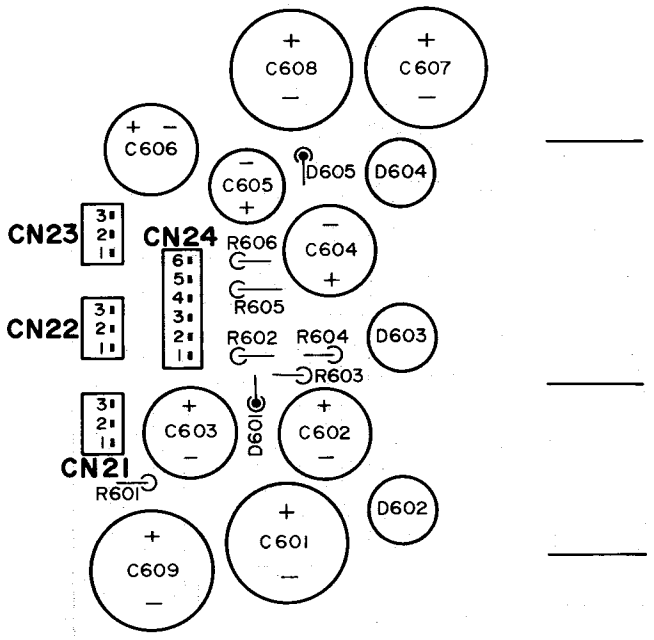


(Bottom View)

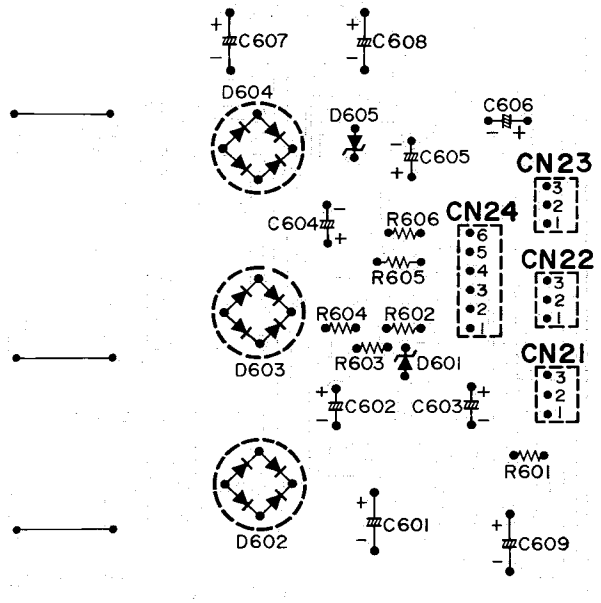


POWER SUPPLY P.C.BOARD

(Top View)

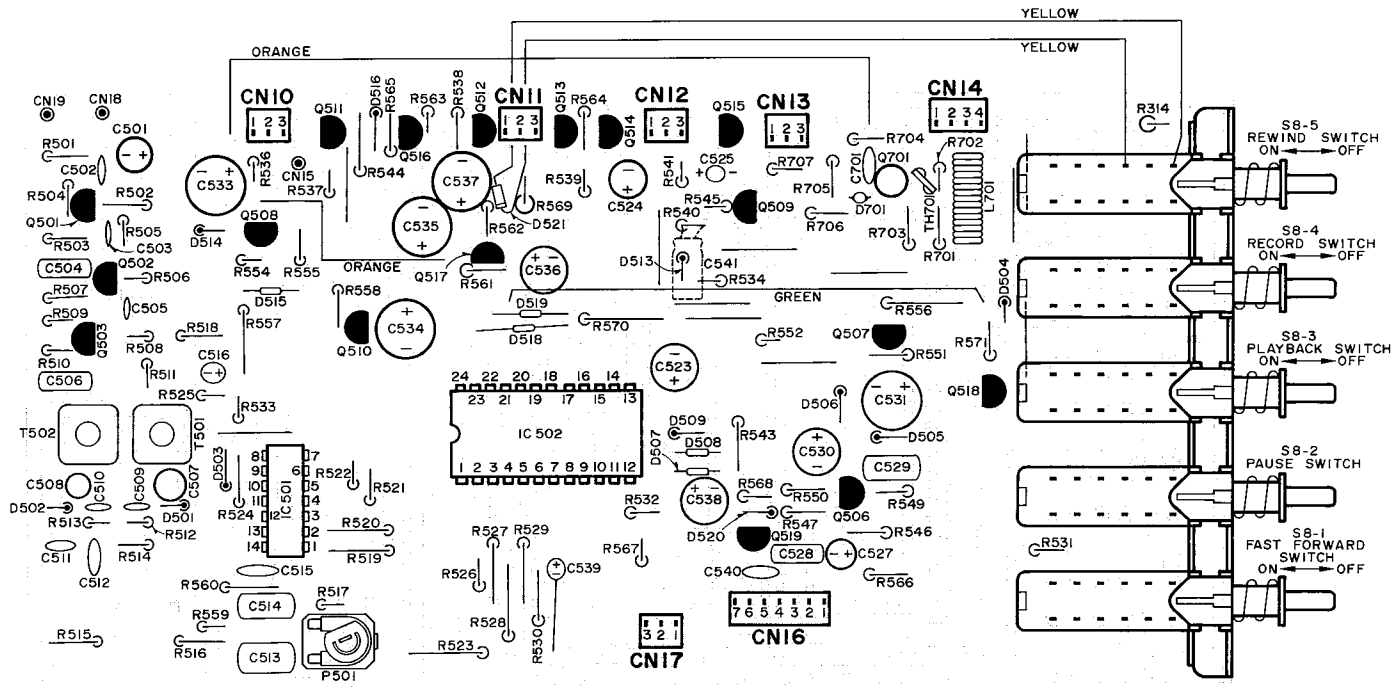


(Bottom View)

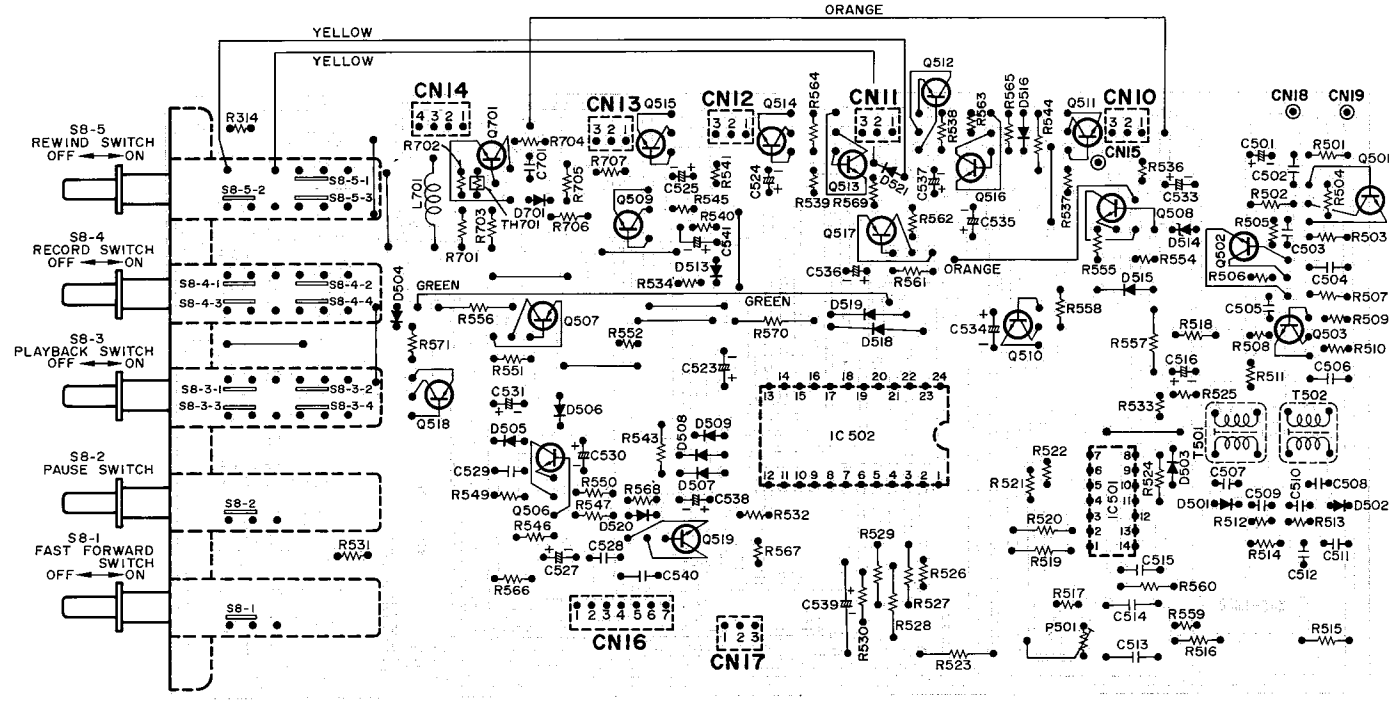


CONTROL AMPLIFIER P.C.BOARD

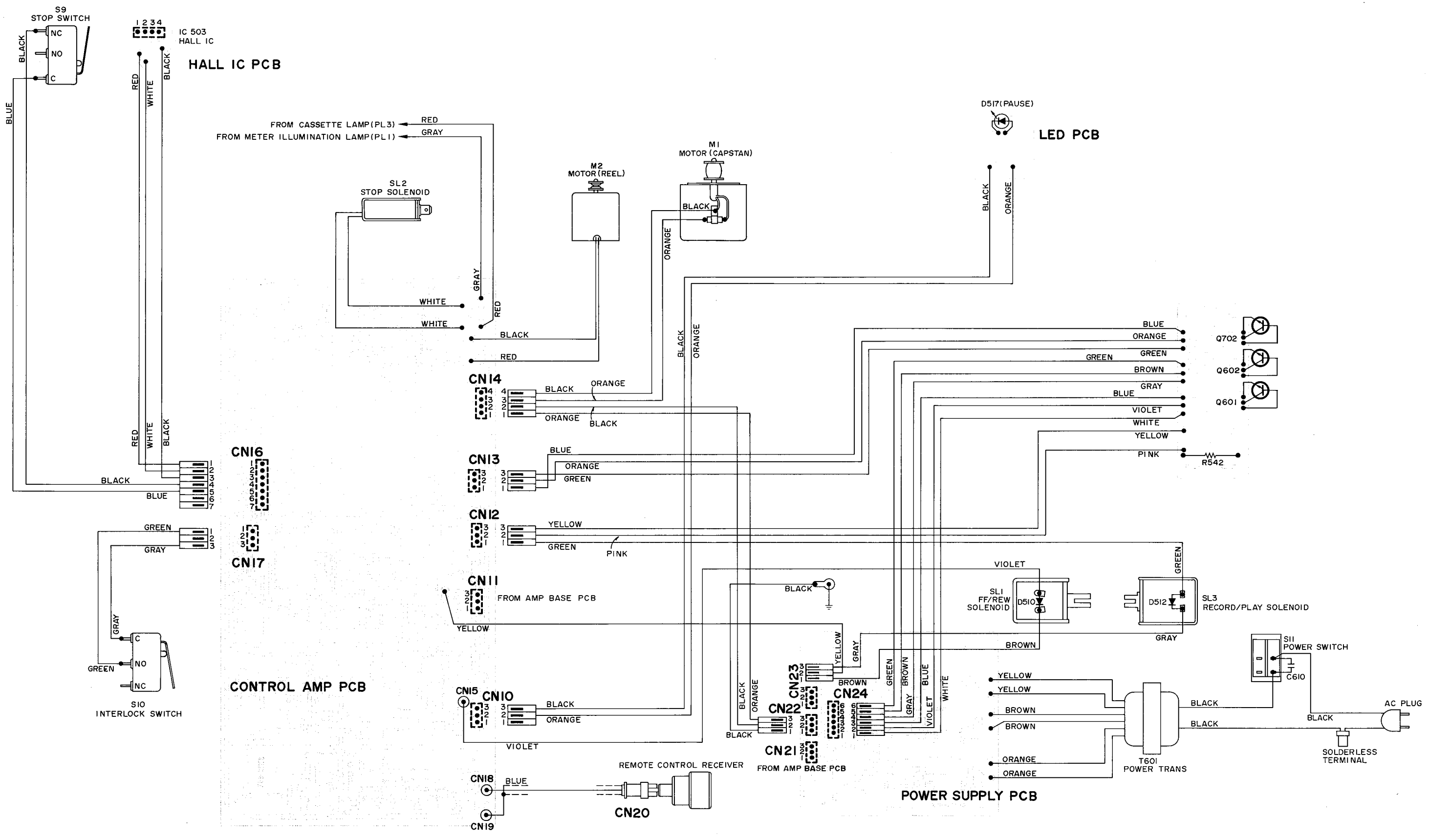
(Top View)



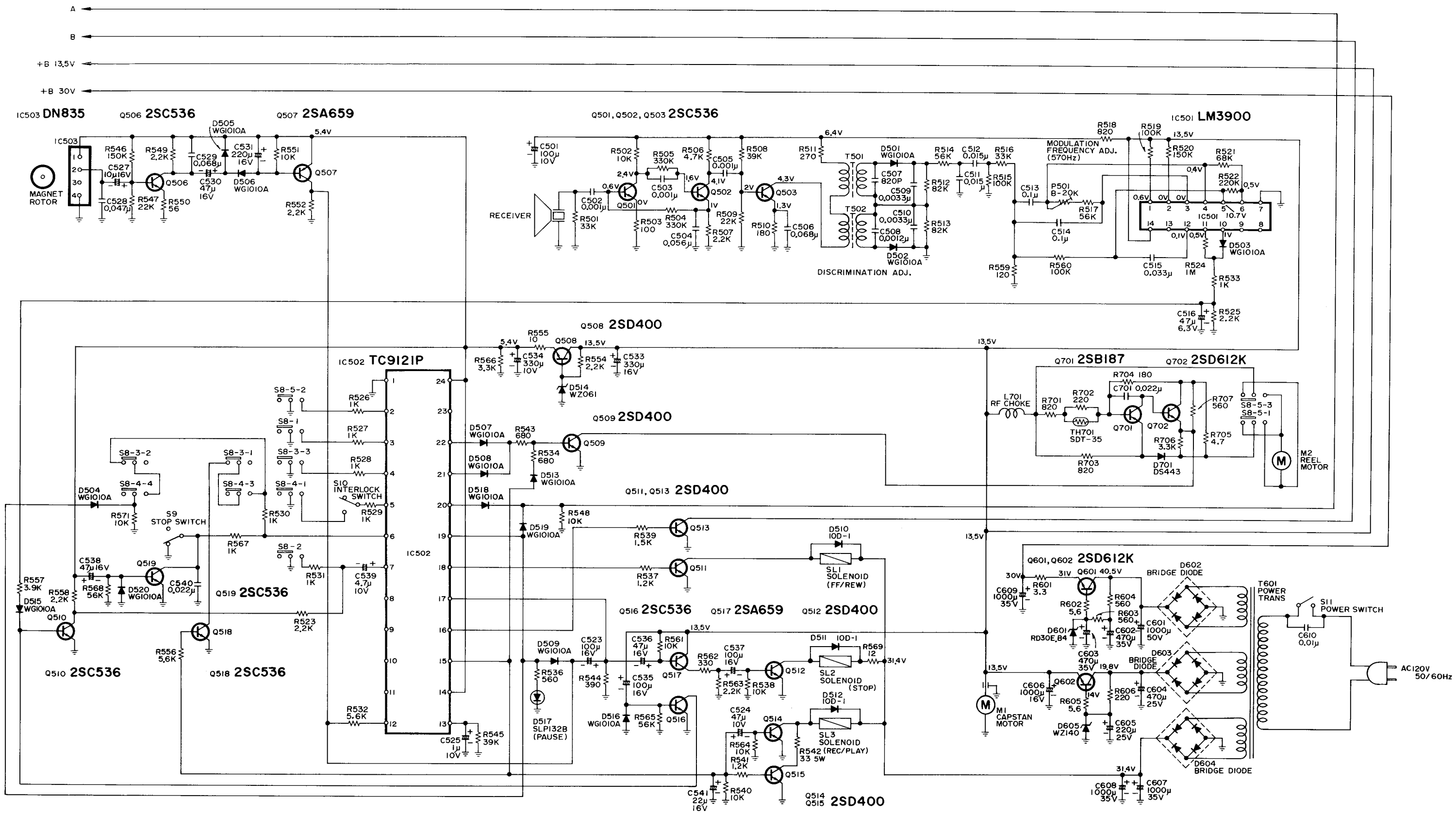
(Bottom View)



WIRING DIAGRAM (Control)

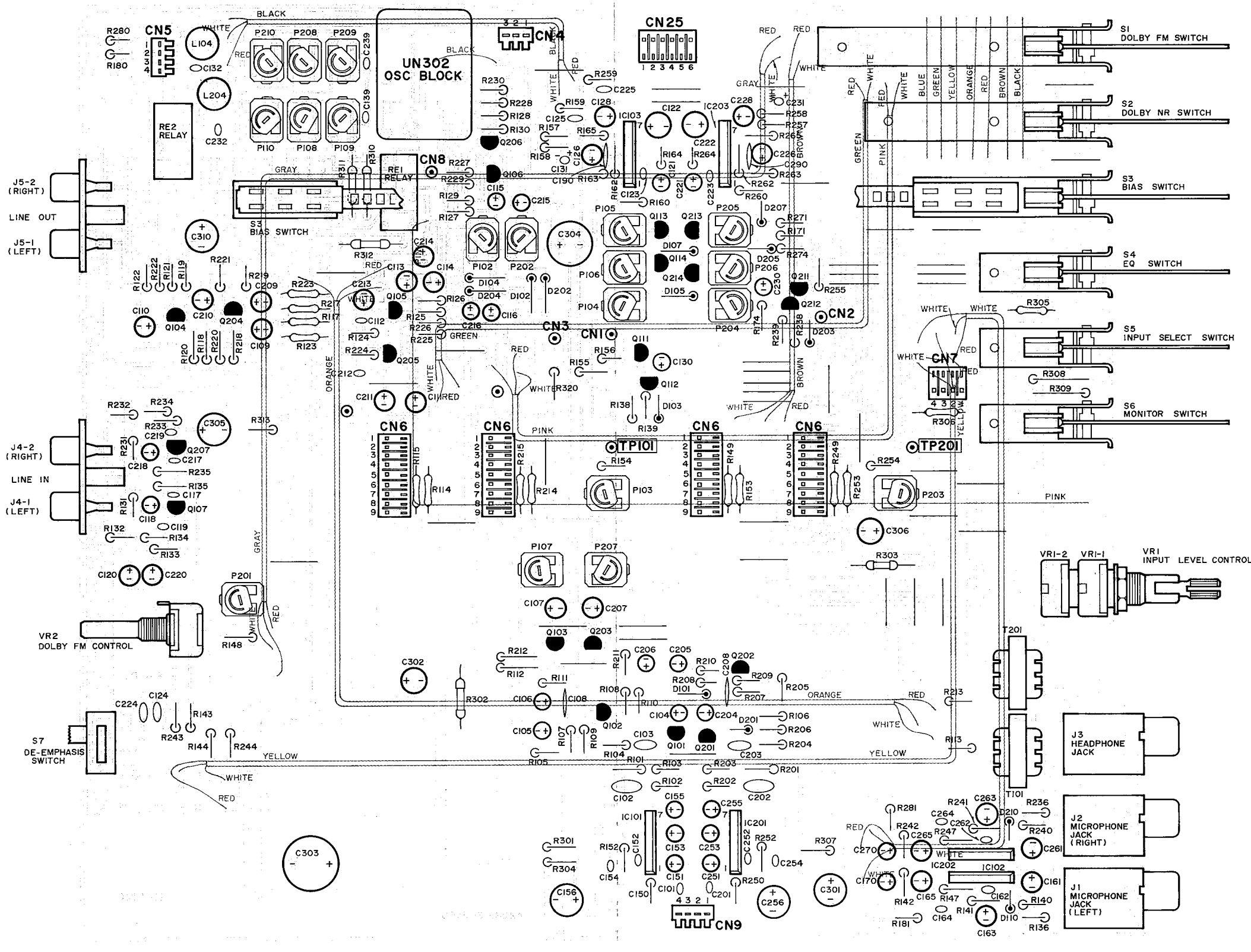


SCHEMATIC DIAGRAM (Control)

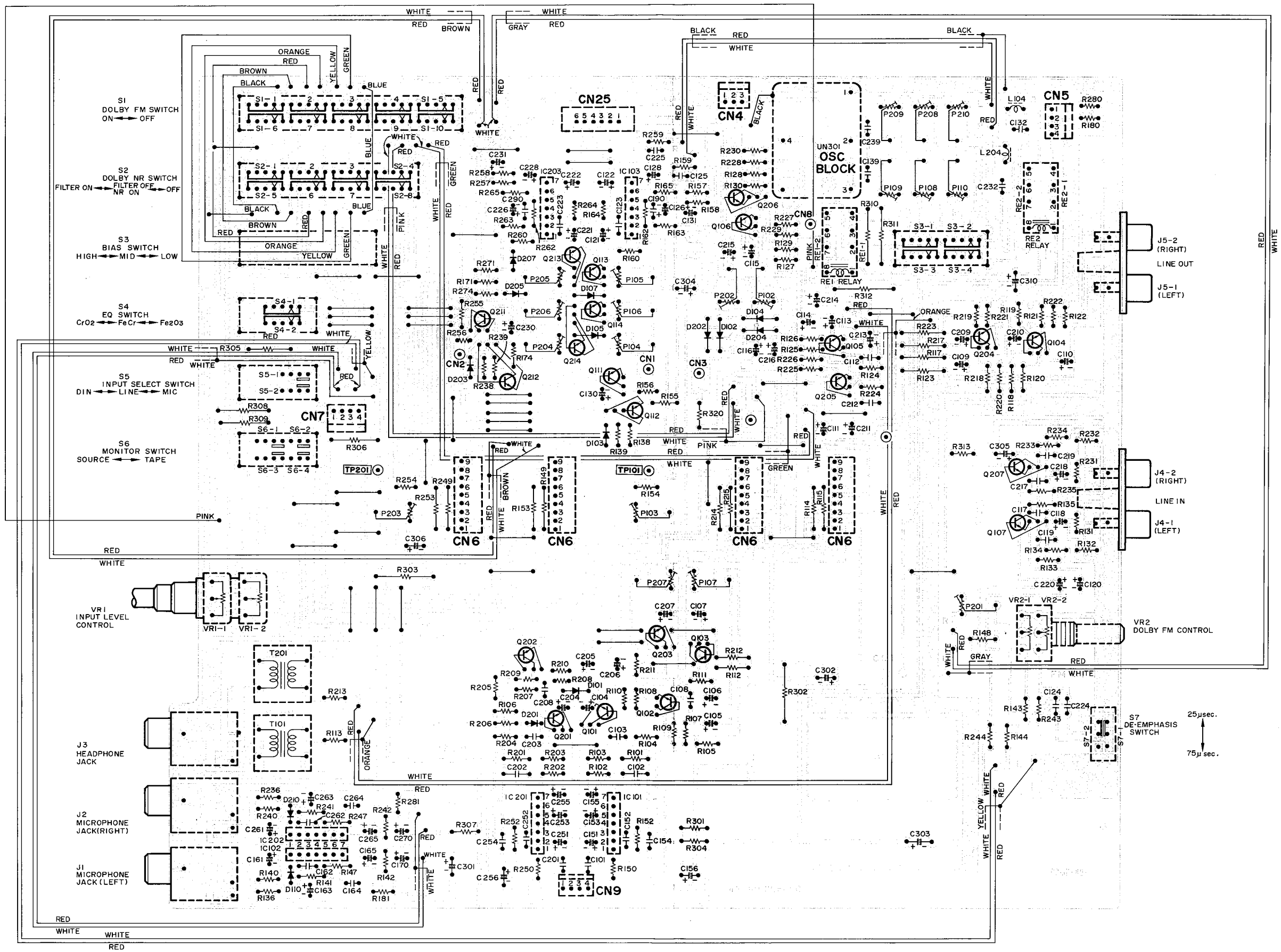


11 16 12 13 14 15

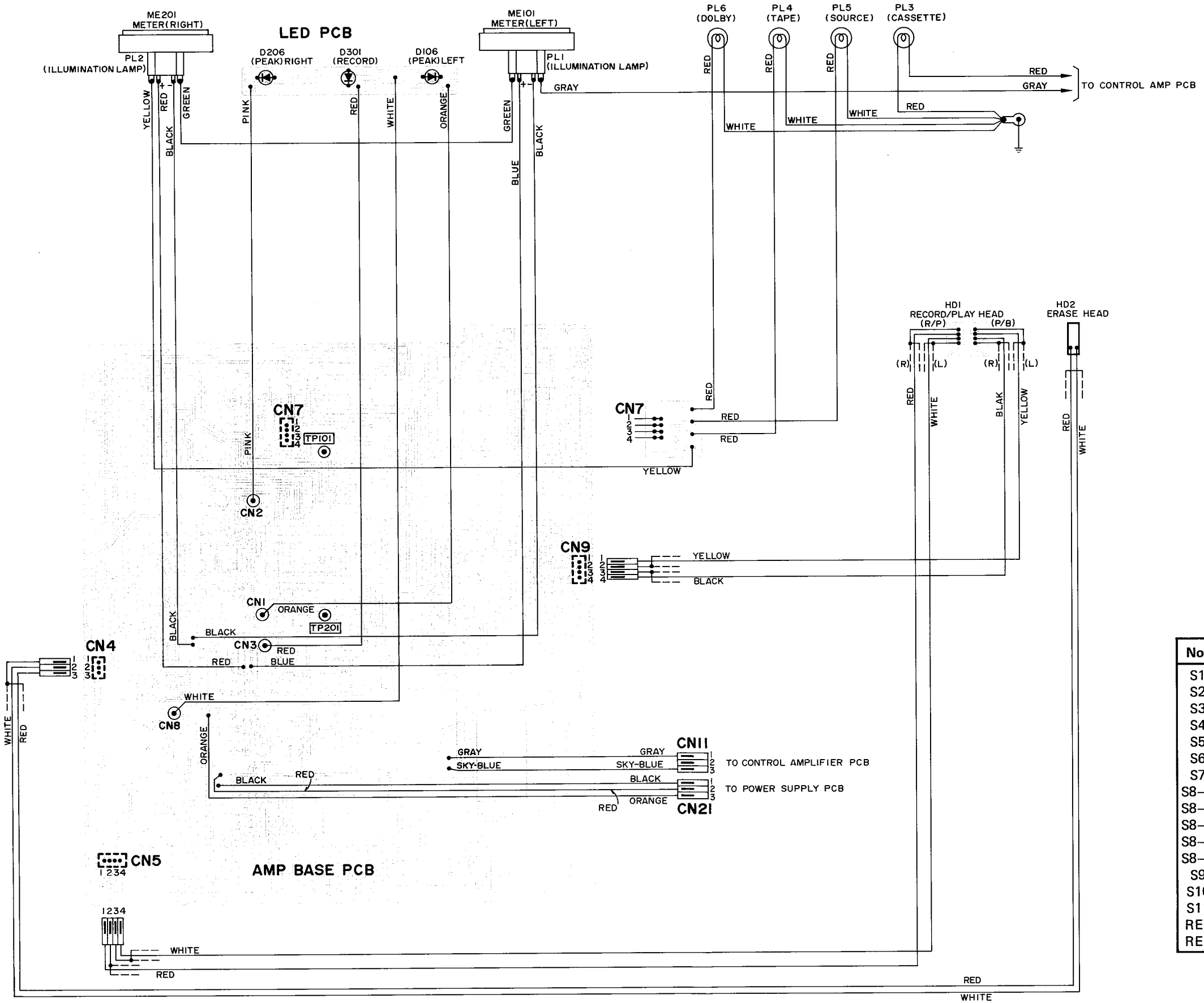
AMPLIFIER BASE P.C.BOARD (Top View)



AMPLIFIER BASE P.C.BOARD(Bottom View)



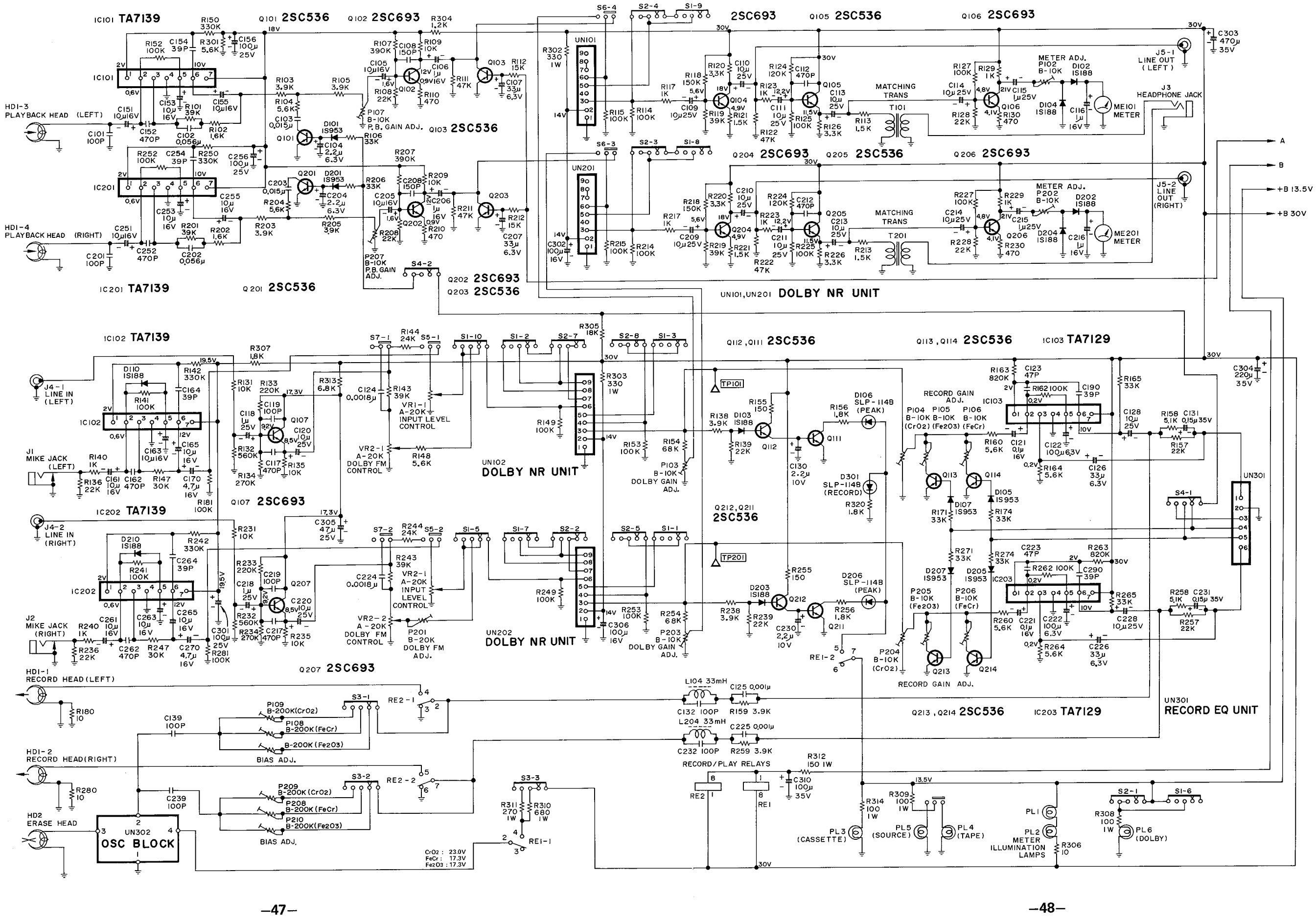
WIRING DIAGRAM (Amplifier)



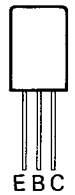
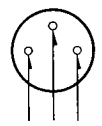
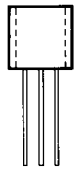
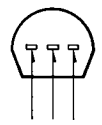
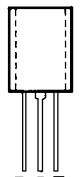
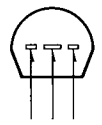
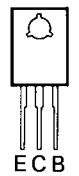
Switch Names and Positions

No.	Name	Position
S1	DOLBY FM Switch	OFF
S2	DOLBY NR Switch	OFF
S3	BIAS Switch	LOW
S4	EQ Switch	Fe_2O_3
S5	INPUT SELECT Switch	MIC
S6	MONITOR Switch	TAPE
S7	DE-EMPHASIS Switch	75μS
S8–1	FAST FORWARD Switch	OFF
S8–2	PAUSE Switch	OFF
S8–3	PLAYBACK Switch	OFF
S8–4	RECORD Switch	OFF
S8–5	REWIND Switch	OFF
S9	STOP Switch	OFF
S10	INTERLOCK Switch	OFF
S11	POWER Switch	OFF
RE1	RECORD/PLAY RELAY	PLAYBACK
RE2	RECORD/PLAY RELAY	PLAYBACK

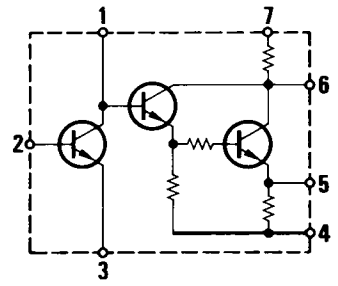
SCHEMATIC DIAGRAM (Amplifier)



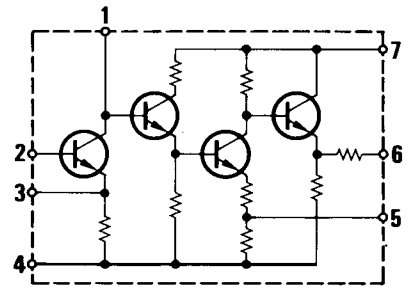
TRANSISTOR LEAD IDENTIFICATION

FRONT VIEW	BOTTOM VIEW	TRANSISTOR
		2SB187
		2SA659 2SC536 2SC693 2SC945 2SC1815
		2SD400
		2SD612K
TERMINAL NAME		
B⇒ BASE C⇒ COLLECTOR E⇒ EMITTER		

IC TA7129 EQUIVALENT CIRCUIT

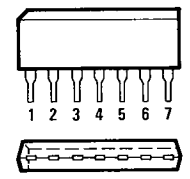


IC TA7139 EQUIVALENT CIRCUIT

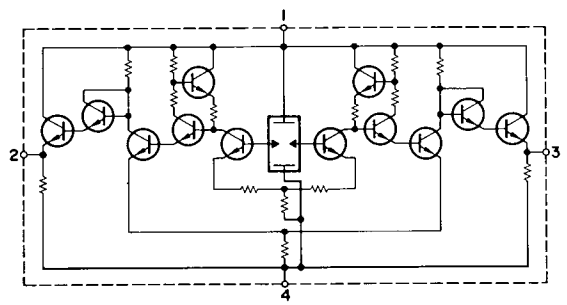


FRONT & BOTTOM VIEWS

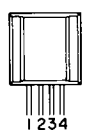
TA7129
TA7139



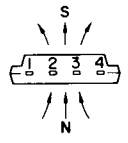
HALL IC DN835 EQUIVALENT CIRCUIT



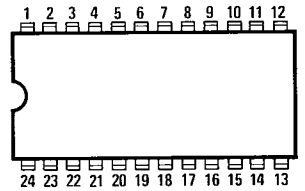
FRONT VIEW



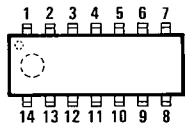
BOTTOM VIEW

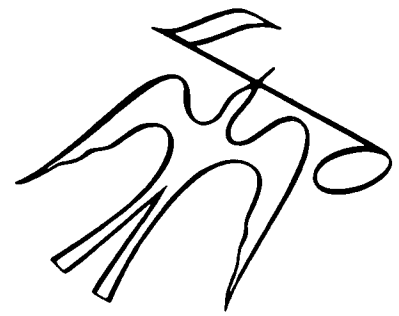


LSI TC9121P BOTTOM VIEW



IC LM3900 BOTTOM VIEW





FISHER

FISHER CORPORATION
21314 LASSEN STREET, CHATSWORTH, CALIF. 91311

March/'79 WM-3451
Printed in Japan
Issue #1